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ABSTRACT

The work reported here is exploratory and investigative in nature, but it is expected to lead to a systematic research program designed to test the validity of propositions about the innovation process. Part 1 is introductory. Part 2 sets the stage for discussion of the Research for Better Schools, Inc. (RBS) field research. Part 3 enumerates the propositions explored in the RBS research and how they were derived from RBS field experience. Part 4 briefly describes the study procedures. These are elaborated more extensively in Appendix A. The findings of the research are reported in Part 5. Part 6 concludes the body of the report by considering some of the implications of the research for practitioners in school districts, institutions performing as linking change agents, and researchers and research managers. Appendixes to the report provide information of interest primarily to researchers and copies of the study instruments and supporting documentation. (Author/IRT)

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TABLE OF CONTENTS

Page

I. Introduction.. 1

II. Brief Review of Related Literature.................................. 9

III. Propositions Studied and RBS Experience on Which They Were Based.. 13

IV. Brief Description of Study Procedures.......................... 21

V. Key Research Questions and Findings.......................... 24

VI. Conclusions.. 64

VII. Appendices

A: Study Design and Procedures

B: Pilot Study Interview Inventory

C: Validity Scale

D: Letter Soliciting Participation

E: Explanatory Correspondence to District Coordinators

F: Glossary of Terms

G: ACP Innovation Process Questionnaire

H: ACP Innovation Process Interview Inventory

I: Consultant Diagnostic Instrument

J: Research Needs

LIST OF TABLES

Table		Page
1	Perceptions About the Climate for Innovation	29
2	Perceptions About the Implementation of an Innovation	30
3	School District Personnel Ranked as Having the Best Information About Externally Developed Innovations	36
4	Participation in the Adoption Process	41
5	Participants in the Implementation of Innovations	43
6	"Desirable Rewards" and "Liabilities" in Implementing Classroom Innovations	50
7	Observation of Innovations Prior to Their Adoption	53
8	Evaluation of Innovations	54
9	Degree of Implementation of Three IPI Innovations	56
10	Sample Correlations Between Level of Implementation and Selected Variables	58
11	Rating (4 to 1) of Training Related to Levels of Implementation	60
12	Frequency Responses of Teachers, Principals, and Central Office Administrators Regarding the Need of an RBS-Type Consultant for Successful Implementation of an Innovation During its First Year	60
13	Rating of Best Development Team	61

I. INTRODUCTION

During recent years, there has been a considerable amount of attention devoted to the problems of educational change, particularly how to get innovations adopted, implemented, and maintained in classrooms. Researchers and practitioners alike have been trying to analyze and systematize field experience with the innovation process. The matter is one of such clear urgency and high priority that the National Institute of Education (NIE) has devoted one of its major research programs to questions about knowledge, production, and utilization in education.

Research for Better Schools, Inc. (RBS) has had extensive experience with the innovation process as a result of its Network of School Districts and Administering for Change (ACP) program. As part of its Fiscal Year '74 scope of work for NIE, RBS undertook field research on the knowledge utilization process in school districts. The work reported here is exploratory and investigative in nature, but is expected to lead to a systematic research program designed to test the validity of propositions about the innovation process. The findings of this research are expected to have significant implications for researchers, practitioners, and policymakers concerned with questions of educational change.

1. Research Focus: Externally-Produced Innovations

Innovations are defined in this research as classroom curricular products that are new to the site (district, building, or classroom) and have been conceived and developed outside of the school district in which the adopting school is located. This definition should be kept in mind. Clearly, there is a considerable amount of innovation that goes on within school districts -- most of it developed by classroom teachers for use within their own classroom and much of it shared with colleagues in the same school. However, the innovation process is quite different when innovations originate outside the district, and it is this latter type of innovation that concerns RBS.

The focus on innovations developed outside the district is not intended to slight those changes designed by teachers for use within their own schools. Rather, the RBS focus acknowledges changes in the nature and structure of educational R&D in this country over the last ten years and unsolved problems that have accompanied these changes. A few words would seem to be in order about these changes, so as to make our purposes clear.

Prior to the last decade or so, innovations in education tended to involve little more than ideas that were popularized and implemented in various settings -- e.g., modular scheduling, ungraded schools, individualization of instruction. Such changes did not require schools to alter their "structural framework." To cite a 1960 study by Brickell, "Few innovations embodied changes in the kind of people employed, in the way they were organized to work together, in the types of instructional materials they used, or in the times and places at which they taught."* Since then, however, there has been a proliferation of specialized R&D institutions devoted entirely to the development of innovative products for school systems. R&D laboratories such as RBS are only a part of this much broader network of public, quasi-public, and private institutions designing and disseminating innovative curricular products. These products usually include complete instructional systems and supportive strategies -- e.g., instructional materials, strategies for classroom instruction, training for teachers and principals, procedures for implementation, and procedures for evaluation. The new innovations are fully engineered and field tested systems that come to schools from external sources, ready to implement, and often with some information about the results to be expected.

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*Henry M. Brickell, Organizing New York State for Educational Change (Albany: State Department of Education, 1961), p. 18.

These new R&D institutions and their innovative products represent a tremendous increase in the resources devoted to R&D functions. As yet, however, the payoff in educational change appears to be negligible in comparison to this increased investment in R&D. One reason for this would seem to be the limited adoption and implementation of these innovations inside classrooms, largely because of difficulties encountered in the stages of adoption, implementation, and maintenance of these innovations. RBS is concerned about the limited payoff to date from this investment in R&D and therefore has designed its research to focus on this aspect of the innovation process. The study has been undertaken in the expectation that it will suggest factors that can overcome obstacles to more effective utilization of the products of this R&D investment.

2. The Need for This Research Project: Audiences to be Served

The need for this kind of research has been apparent to RBS staff members for years as the A&D program has tried to assist school districts to overcome difficulties in attempting changes. RBS experience appears to be typical. The more one examines the literature on educational change and the experience of practitioners, the more one gets a sense of the kinds of problems that are faced. But as yet, knowledge about the change process is fragmentary and unsystematized.

The ACP program has a history of studying the literature on change.* RBS has also conducted meetings and seminars to listen to teachers, principals, superintendents, and state department of education officials as they considered change. Our judgment of the inadequacy of the educational change literature was corroborated in an October 1973 ACP symposium, "What Does Research Say About Getting Innovations Into Schools?" Discussants and presenters alike agreed that most of the change-related knowledge is in the form of assumptions, hypotheses, and models, and little exists in the form of hard data. The few data-based studies that are available have been so loosely conceptualized and designed that their results are open to a number of alternative explanations and, as such, generally offer little clear-cut, concrete help to practitioners.

However, the literature is helpful in providing suggestive clues about the complex interactions that comprise the change process. It is particularly useful when viewed in conjunction with the insights gleaned from RBS field experience. Of particular relevance is the literature that discusses the role of linking change agents that serve as intermediaries between the R&D producers and the schools.* But what is missing from most of the literature is an analysis of the kinds of local strategies that are needed to help school districts to relate to externally-produced innovations.

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*Louis Maguire, An Annotated Bibliography of the Literature on Change (Philadelphia: Research for Better Schools, 1970); Louis Maguire, Observations and Analysis of the Literature on Change (Philadelphia: Research for Better Schools, 1970); Sanford Temkin, An Evaluation of the Literature of Comprehensive Planning: With An Annotated Bibliography (Philadelphia: Research for Better Schools); Louis Maguire, Sanford Temkin, and C. Peter Cummings, An Annotated Bibliography on Administering for Change (Philadelphia: Research for Better Schools, 1971); and Sanford Temkin and Mary V. Brown, What Does Research Say About Getting Innovations Into Schools (Philadelphia: Research Symposium, 1973).

RBS field experience has suggested that the predominant local change strategy in use today is what we refer to as the "single building strategy" for implementing externally-produced innovations. Characteristically when this strategy prevails, the central school district office plays little role in the change process. Instead, a principal learns about a classroom innovation, decides that it ought to be introduced into his school, proceeds to involve teachers, train staff, and order materials, and generally takes responsibility for all aspects of implementing the innovation. Central office linkages and approvals during the process are minimal, occurring only when absolutely essential.

In all phases of this change process, RBS staff have found numerous problems that impair the effectiveness of the changes attempted, and often nullify the innovation effort altogether. Using a systems analysis approach to the process of managing educational innovations, we organized the various hunches suggested by our field experience and generated from these hunches a set of propositions that we explored in this study. Information about these propositions can help RBS develop a model of the change process in instances where the "single building strategy" prevails. The model will underscore the problems encountered in each phase of the change process, and suggest the kinds of strategies likely to be effective in overcoming such difficulties.

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*For instance, see Ronald G. Havelock, The Change Agents Guide to Innovation in Education (Englewood Cliffs: Educational Technology Publications, 1973).

This kind of information should be particularly useful for institutions like RBS that are attempting to perform the role of linking change agent. Had RBS staff members had this kind of information earlier in the history of the ACP program, our attempts to work with school systems to implement changes might have been more effective and certainly would have proceeded more efficiently.

In addition, the kind of information provided by our research has direct relevance to practitioners who have been trying to grapple with the difficulties of implementing externally-produced innovations, more often than not with limited success. It should help them improve the capability of their schools to adopt, implement, and maintain innovative clasroom practices.

A third audience toward which we are targeting reports of our findings is the community of educational researchers and research managers who have been concerned with the innovation process, and especially with diffusion issues. For this audience in particular, we have outlined some of the research needs highlighted by our findings and particularly the questions and areas in need of systematic research. We have also considered a number of research design issues that must be taken into account if this research agenda is to be pursued. We have presented all these research-oriented issues in appendices, along with technical information about the study's procedures and design. We have assumed that interest in these matters is confined largely to researchers, and therefore that such discussions are inappropriate to the body of a report targeted primarily at practitioners -- both inside school systems and in institutions serving as linking change agents.

In accord with the RBS scope of work for NIE, then, the report that follows has been written primarily for an audience of practitioners, with technical appendices provided for researchers, and research managers; particularly research managers with some influence on the policy decisions and research agenda to be supported by major funding agencies such as NIE. Part II of the report sets the stage for our discussion of the RBS field research with NIE. Part III enumerates the propositions explored in the RBS research and how they were derived from RBS field experience. Part IV describes briefly the study procedures. These are elaborated more extensively in Appendix A. The findings of the research are reported in Part V. Part VI concludes the body of the report by considering some of the implications of the research for practitioners in school districts, institutions performing roles as linking change agents, and researchers and research managers. The research implications are discussed in more detail in Appendix J. Appendices to the report provide information of interest primarily to researchers and copies of the study instruments and supporting documentation.

In reading the subsequent sections of this report, the exploratory nature of the work reported here should be kept in mind. RBS' workscope was to be completed during FY '74 and FY '75. No pretext is made that RBS has completed, in FY '74, a rigorously designed, methodologically sophisticated study that will produce definitive knowledge about the innovation process in education. However, within the limitations of what was possible under the given circumstances, we believe that the FY '74 study reported here contributes some important insights about the innovation process and its difficulties. It is hoped that our findings will make some small contribution to the accumulating knowledge base on educational change. And of equal importance, we would like to believe that our findings point the way toward the more rigorous research of FY '75 needed to test the validity of our conclusions.

II. BRIEF REVIEW OF RELATED LITERATURE

What do research findings say about getting innovations into schools? RBS has long been concerned with the issues of how innovative practices not only get into schools, but how they are implemented and supported. In October 1973, we invited a knowledgeable group of persons to bring their insights and experience to a symposium called "What Do Research Findings Say About Getting Innovations Into Schools?"*

Certainly RBS is not alone in its interest in this domain. NIE, when faced with the near overwhelming task of taking a position on how the R&D outputs of its contractors would be utilized by the schools said:

> . . .we want to suggest that the paradigm of R&D used in past policy has been too narrow, and based on restrictive assumptions about how to help schools solve problems. Further, we feel a revised context of the 'R&D system' must include attention to how and by whom problems get formulated in the first place. . . .and to the organizational life of operating systems which will affect the possibility of implanting a solution in a problem.**

NIE's expression of extended mission was a reflection of current frustration by all sectors of education. Research interest in this domain, however, was initiated years ago with the works of Paul Mort. Starting in the 1930's, he and his colleagues investigated the characteristics of innovative school districts to determine why changes in response to felt needs took so many years to achieve widespread practice.*

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*The appendix to this paper contains a list of symposium participants.

**Building Capacity for Renewal and Reform: An Initial Report on Knowledge Production and Utilization in Education. Washington, D.C.: National Institute of Education, December 1973.

In 1961, Henry M. Brickell conducted a comprehensive study in the schools of New York State. The purpose was to recommend to the State Commissioner of Education ways to (1) evaluate new practices and devices, (2) initiate and expand constructive experimentation in schools, and (3) facilitate and accelerate widespread use of practices and devices which had been proved or might be proved successful.**

Later, Richard O. Carlson tried to identify why some innovations were more successful in gaining acceptance than others.***

Orlosky and Smith examined major educational changes over a period of seventy-five years to find out why it takes so long for new practices to get into schools and what is the knowledge base on which to build investigations of this process.****

As best we can tell, the first empirical study that focused on the capability of the schools to _support_ innovative practices was conducted by Gerald Becker, _et al_. Most of the previously cited studies were focused on "why does it take so long" and "what are the characteristics of the innovative schools?" Becker's study concluded that:

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*Paul R. Mort and Frances G. Cornell. _American Schools in Transition_. New York: Teachers College, Columbia University, 1941.

**Henry M. Brickell. _Organizing New York State for Educational Change_. Albany: New York State Department of Education, 1961, p. 12.

***Richard O. Carlson. _Adoption of Educational Innovations_. Eugene: University of Oregon.

****Donald Orlosky and B. Othaniel Smith. "Educational Change: Origins and Characteristics." _Phi Delta Kappan_. March 1972.

> The principal's lack of knowledge about the strategies to employ in effecting educational change is a critical factor in the current leadership crisis. The majority or principals are confident of their ability to oversee the routine operations of their buildings, but few have any degree of confidence in their ability to assume a leadership role in instructional improvement.*

Temkin, in his paper presented at the RBS symposium said:

> What view of the R&D production process should an R&D agency maintain? To what degree should the view be through its own eyes or through those of the schools? Should the R&D agency develop a capability to advise schools on the use of an innovation or should the schools have their own capability to select and implement innovation? It is the contention of ACP that the R&D agency cannot hope to have schools implement its wares as long as schools are unable to interface with the new kinds of innovations being made available to them. The view that knowledge utilization will come about through linkages created by forces external to the schools assumes that they are to be recipients of a content transmitted by structures that know their wants and needs better than they do . . .
>
> The Havelock conception is useful but by no means sufficient to enable a school district to deal with the practicalities of an innovation. We agree it is essential that the R&D agency and linking change agents serving as intermediaries between the R&D producer and its clients, understand the schools. Of equal importance is the need for schools to understand the potential contributions that R&D can make to instructional improvement. Still another view, however, is required before school districts will be able to adapt to change . . . A missing ingredient, then, to complement knowledge utilization views, is a set of local strategies that school districts can employ to relate to externally-produced innovations.**

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*Gerald Becker, et al. Elementary School Principals and Their Schools. Eugene: University of Oregon, 1971, p. 9.

**Sanford Temkin, "A School District Strategy for Interfacing With Educational R&D" in What Do Research Findings Say About Getting Innovations Into Schools? (Sanford Temkin and Mary V. Brown, editors.) Philadelphia: Research for Better Schools. January, 1974, pp. 129-130.

In summary, there is a great need for NIE, R&D agencies, state agencies, and the schools to learn about the problems faced by schools as they adopt-adapt and implement innovative practices. While there are many research strategies, we feel that those that examine the schools as they build their own capabilities to relate to innovative practices have a strong and immediate payoff.

III. PROPOSITIONS STUDIED AND RBS EXPERIENCE ON WHICH THEY WERE BASED

In searching for a model of school district interface with externally-produced innovations, RBS applied systems analysis concepts to its accumulated field experience with educational change. These concepts seemed useful as an organizing framework for the range of behaviors from pre-adoption decisions all the way through to maintenance of an innovation and absorption into the regular school program and budget. Most formulations of the systems approach to problem-solving are similar, but the one RBS found particularly useful was laid out by Roger Kaufman.* Kaufman described six steps as follows:

1. Identify problem (based on documented needs).
2. Determine solution requirements and solution alternatives.
3. Select solution strategies (from among the alternatives).
4. Implement selected strategies (to achieve required outcomes).
5. Determine performance effectiveness.
6. Revise as required at any step in the process.

These six steps are analogous to four phases of the innovation process, as it unfolds in school districts. The first phase is one we refer to as pre-planning. Ideally, it should encompass the first three steps in Kaufman's systems model (i.e., identifying problems and possible solutions, and selecting a particular solution strategy from among the alternatives). This would seem to be the point in the innovation process when school districts would determine what they need and what the proposed innovation implies in terms of operational, organizational, and perhaps personnel changes in the district. If the adoption of innovations were a fully rational and rationalized process, this phase would entail determination of objectives in terms of the outcomes of the district's needs assessment, and delimitation of the outcomes expected from a given innovation, the resource requirements, and the implementation requirements for success. Also during this phase, it would seem reasonable to expect some discussion of the implications of the proposed changes among school board members, administrators, teachers, parents, and community groups, and perhaps input by these groups into the implementation plans.

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*Roger A. Kaufman, Educational System Planning (Englewood Cliffs: Prentice Hall, 1972).

However, RBS experience suggests that little of this pre-planning actually occurs prior to the decision to adopt an innovation. Instead, adoption decisions appear to be made on limited evidence, with minimal forethought, discussion, or planning for the proposed changes. The principal of a school tends to be the one to make a decision to adopt an innovation, and with minimal hard data about the innovation he proceeds to do what he has to in order to get the innovation into his school. Usually, he can find the funds needed to pay for the innovation from external funding sources. Therefore, his adoption decision requires little consultation with central office administrators and little of the kind of open community and school board discussion required to "sell" a change that will entail use of local funds. Since little prior discussion of the innovation is needed, fewer questions are raised about the changes to be expected from the innovation or the implications of the changes for teachers and others. The lack of discussion and involvement tends to result in a lack of commitment to the innovation by a broad base of school personnel, school board members, central office administrators, and parent and community groups. Therefore, when the special funding is terminated after the end of the initial demonstration phase, the limited following generated for the innovation in this initial stage may well mean few advocates for it when later funding battles must be fought. And too, less commitment to the innovation as a result of lack of involvement in planning for it, may mean less effort devoted to its success during the implementation stage. It is our assumption, then, that many of the difficulties encountered later in the innovation process are traceable to this lack of adequate pre-planning.

The second phase of the innovation process, as RBS conceives it, is the stage we refer to as training and implementation, precisely the same as Kaufman's implementation step in his six-stage scheme. RBS experience has underscored the seriousness of problems related to lack of training prior to and during the implementation stage. Not only is training lacking as a priority item, but there appears to be an inadequate appreciation of the importance of training in carrying out plans for educational change. Even where an external change agent such as RBS is able to persuade a district of the usefulness of initial training when an innovation is first implemented, continuous training needs tend to be neglected. Initial training is perceived as necessary to familiarize personnel with the new curricular products and the specific competencies they require. However, what tends to be overlooked is the training needed for the innovations as process as well as product. For instance, coordination of change functions is important for central office personnel, especially when several schools are involved in the implementation. Such coordination is difficult and can be facilitated with the right kind of training. Similarly, principals and teachers need a clear understanding of how the central office can support the implementation of innovations in classrooms. And the various administrators involved need to learn how to monitor classroom implementation to determine the extent to which instructional strategies are targeted at the student outcomes expected by the district. Much of this kind of functioning appropriate to the change process does not come naturally, and much of it fails to materialize at all without training. Therefore, RBS would argue that the innovation process often falters because it is not managed properly, and that this problem can be overcome with adequate training.

The next phase of the innovation process is what Kaufman described as determining performance effectiveness, or what we refer to as evaluation. Systematic evaluation is essential if school districts are to have the kind of information they need about the innovation's effectiveness as a basis for deciding whether to continue, terminate, or expand a given program. RBS believes that an evaluation plan should be prepared by a district as soon after the pre-planning phase as is practical. And further, the plan should be adhered to closely and the necessary data reported to those implementing the program and those responsible for decisions about its future.

However, RBS experience suggests that few districts engage in this kind of evaluation activity. Few have the internal capabilities to conduct such evaluations. And equally important, implementation tends to be seen as so important that all energies are devoted to program implementation and evaluation needs are ignored. Later in the school year, when it becomes apparent that evaluation information is needed, it is too late to design evaluations that can produce the kind of information needed. Consequently, program decisions tend to be made with little hard evidence about program outcomes.

The final phase of the innovation process is what Kaufman describes as revision of plans. We describe the phase as one of updating, i.e., reconsidering the merits of an innovation, taking into account community, staff, and student perceptions of the changes, and considering changes in such important areas as funding patterns. RBS experience suggests that innovations tend to fall by the wayside at this point in the process: few districts replace an existing practice with a new practice even when the latter has been demonstrably more effective. And in the absence of strong evidence of the success an innovation has had within a district -- the kind of information that might have been generated by evaluative research -- there is even less of a case that can be made for the maintenance much less the expansion district-wide of the innovation using local monies.

Based on staff discussions of these impressions gleaned from RBS field experience, these and other impressions were formulated in a series of propositions. Formalizing our thoughts in this form suggested other hunches about the innovation process that we added to this list of propositions. In all, 35 propositions were formulated describing our impressions and hunches about the four phases of the innovation process -- pre-planning, training and implementation, evaluation, and updating. Our research was designed to explore these propositions and particularly to suggest how linking agents such as RBS might assist school districts to more effectively use and more permanently assimilate externally-produced curricular innovations into their ongoing programs.

The 35 propositions follow:

Pre-Planning

1. The adoption of an innovation almost always depends on sources of funding other than the regular state appropriation and local revenue.

2. The school board's role in making decisions to adopt an innovation is different from its role in making decisions to maintain an innovation.

3. When one school building is involved in the adoption of an innovation, central office administrators exert little or moderate influence on the decision.

4. When more than one school building is involved in the adoption of an innovation, central office administrators exert strong influence on the decision.

5. Innovations are adopted for a variety of reasons. It is likely, in many instances, that supporting hard data, related to student outcomes, are not prominent among these reasons.

6. Teachers, principals, and central office administrators perceive externally-produced R&D classroom innovative practices as having a greater payoff potential than innovations that have not been the result of such developmental processes.

7. Principals and teachers prefer to see an innovation in use before deciding on the adoption of the innovation for their schools.

8. The greater the number of administrators and teachers involved in the adoption decision, in relation to those who will participate in the implementation, the greater the success of implementation.

9. The greater the number of administrators and teachers involved in the implementation planning, in relation to those who will participate in the implementation, the greater success of implementation.

10. Central office administrators are less aware of the innovations available to them than are principals.

11. Administrators do not perform evaluation of innovations available to them before making adoption decisions.

Training and Implementation

12. Successful implementation of an innovative classroom practice is associated with a number of pre-conditions. These include external pressure, internal tension, a previous atmosphere of change and an outside expert with a positive image.

13. When someone from a group outside of the school district plans the adoption of an innovation, the success of the implementation will be less than if it were planned by staff within the district.

14. When someone from a group outside of the school district plans the implementation of an innovation, the success of the implementation will be less than if it were planned by staff within the district.

15. When someone from a group outside of the school district, who is completely knowledgeable of the innovation, works closely with staff within the district in planning the adoption of an innovation, the success of the implementation will be greater than if it were planned totally by staff within the district.

16. When someone from a group outside of the school district, who is completely knowledgeable of the innovation, works closely with staff within the district in planning the implementation of an innovation, the success of the implementation will be greater than if it were planned totally by the staff within the district.

17. Teachers believe they lack some of the skills and competencies needed to implement an innovation.

18. Central office administrators believe that they lack some of the skills and competencies needed to adopt and implement an innovation.

19. Principals believe that they lack some of the skills and competencies needed to adopt and implement an innovation.

20. Central office administrators desire training in order to acquire some of these skills and competencies.

21. Principals desire training in order to acquire some of these skills and competencies.

22. Teachers desire training in order to acquire some of these skills and competencies.

23. There is a direct relationship between the level of implementation and the quality of continuous training during implementation.

24. A higher level of implementation of innovative classroom products will occur in schools and/or school districts which provide incentives to teachers and administrators for successful implementation of such products.

25. Principals who have participated in a successful implementation of an of an innovation are usually willing to pilot other innovations. The converse is true of principals who have had unsuccessful experiences.

26. School administrators and teachers are not well prepared by their preservice education to perform new roles required by innovations.

27. A school begins by adopting an innovation and ends up by adapting it.

28. Principals prefer to pilot an innovation in one or a few classrooms, before implementing it school-wide.

29. School administrators and teachers perceive field consultant services, such as those provided by RBS, as being essential during the first year of implementation.

Evaluation

30. School administrators do not perform process evaluation of innovation during their implementation.

31. School administrators do not perform product evaluation of an innovation after its implementation.

Updating Plans

32. Central office administrators generally exert moderate to no influence on decisions regarding an ongoing implementation.

33. Central office administrators exert strong influence on decisions about whether or not to maintain an innovation.

34. Successful ongoing implementation, without external field consultant service, is feasible under certain conditions (the task is to identify these conditions).

35. Administrators do not replace old practices with innovations even after pilot has been successful.

IV. BRIEF DESCRIPTION OF STUDY PROCEDURES

Ten school districts participated in the pilot study conducted in October 1973. The results of the pilot study were used, along with recommendations from consultants, to revise the pilot instrument. The most important change was the division of the total set of pilot items into two instruments, a mail-out questionnaire and an orally-administered interview inventory. A copy of the pilot instrument is provided in Appendix B.

The content validity of the study instruments was determined by practitioners. Included were teachers, principals, and central office administrators who had some experience with the innovation process. Item validity was determined by agreement of four or more of the eight practitioners.

RBS network schools were then invited to participate in the study. Of 80 schools in the network, 29 were ineligible for participating in the final study because members of either their school or district headquarters staff had participated in the pilot study conducted in FY '73. Of the 51 remaining schools eligible for inclusion in the study, eight declined to participate. Two other schools were eliminated because the principals of these schools held dual network principalships and thus responded to RBS' questions for one network school. Consequently, a total of 41 schools participated in the study.

When each of the 41 schools agreed to participate in the FY '74 study early in May, the principal provided background information about two classroom innovations implemented in his/her school, one developed by RBS (IPI Math, Reading, or Spelling -- whichever was first introduced into the district) and a second innovative classroom product developed by an agency other than RBS. A copy of this background form completed by the principal is provided in Appendix D.

Questionnaires were then mailed to all participating schools, along with a glossary of key terms used in the instruments (e.g., adapt, adoption, evaluation, implementation, influence, innovation, installation, maintenance, and successful implementation). Copies of the questionnaire and glossary are provided in Appendix G.

In each participating school, written questionnaires were completed by the principal and three teachers who were involved in the implementation of the designated innovations in the school. In addition, one or two members of the central office staff of the school district completed questionnaires. RBS specified that these central office staff members must be knowledgeable of the innovations identified by the principals and the funding which supports their implementation. The questionnaires were followed up by orally administered on-site interviews of the study participants and observations of classroom implementation of the designated innovations. A copy of the interview inventory is provided in Appendix H. The written questionnaires completed by the principals and central office staff members were mailed to RBS and reviewed prior to the interviews. The teachers' questionnaires were completed on the day prior to the scheduled interviews and reviewed by RBS personnel on the day of the scheduled interviewing and classroom observations. The interviews and observations were conducted between May 20 and June 20, 1974.

For more detailed elaboration of the study procedures and for some discussion of the research design decisions that were made, the reader is referred to Appendix A.

V. KEY RESEARCH QUESTIONS AND FINDINGS

The RBS research reported here explored most phases of the innovation process and the key decision points in that process. The study instruments pose a wide variety of questions about who was involved and how much influence each had in the decision to adopt an innovation, and later, to maintan, expand, or terminate an innovation, and decisions about how an innovation was to be implemented in a given school. In addition, the instruments solicited information about the "climate" for innovation in the participating school districts: the attitudes of the participating personnel toward innovations and the likelihood of their having significant impact, the internal and external pressures on school personnel that encourage or inhibit use of innovative curricular products, the incentives that exist to stimulate and encourage use of innovations, and the liabilities perceived by participants as inevitably accompanying the implementation of an innovation. Questions were also focused on other factors that affect the likelihood of a district considering and deciding to adopt, expand, or terminate an innovation -- for instance, funding patterns tied to a given innovation, channels available to district personnel to inform them about available innovations, whether or not district personnel saw the innovation in operation prior to adopting it, the availability of outside consultants to work with district personnel in the various phases of the innovation process, the quantity and quality of training provided to help district personnel to implement a given innovation, and the quantity and quality of evaluation and evaluative feedback that accompanied the implementation effort.

Other matters explored in the instruments included the following: how well the college preparation of respondents prepared them for finding and implementing innovations; innovation adoption and diffusion practices within a district (for instance, whether innovations are tried in one school and then diffused to others, or whether they are implemented in several schools at once).

We shall report here some of what we learned. In addition, we shall consider a number of key questions that we consider to be the focus of the research. These questions concern the factors that relate to effective implementation of classroom innovations, particularly how the level of implementation relates to: (a) the change climate in the school district (e.g., internal and external tensions), (b) participation in decisions regarding adoption and implementation; (c) levels of influence of key persons, (d) extent o[illegible]aluation, (e) presence of incentives to encourage and support innovation, and (f) use of outside consultant support. RBS has conducted data analyses designed to indicate how various planning variables are related to levels of implementation of RBS innovative classroom products and what key variables discriminate between schools with high and low indices of implementations of the innovations.

The key dependent variable in these analyses is level of implementation as measured by ratings made by RBS staff members who observed classrooms in these schools where the innovations were in use. Ratings of degree of implementation were recorded on the Consultant Diagnostic Instrument (CDI). This instrument enabled RBS staff to calculate composite scores for each RBS innovation observed. Each score indicated the degree to which the classroom implementation of a given RBS innovation reflected the model prescribed by those who developed the innovation. The raw CDI scores were then collapsed into three categories reflecting high, medium, and low degrees of implementation.

It should be understood, then, that the defining criterion for judging degree of implementation was the model of implementation prescribed by the external developer. The more the innovation was adapted either to suit what district personnel defined as local needs or to conform to their predilections about curriculum or teaching strategies, then then the lower the degree of implementation under this scoring system. Since the concern of RBS was with the diffusion of externally-produced innovations, we assumed this was a reasonable approach. However, we know that innovations are usually adapted to some degree or other to local needs and predilections and that therefore research should also consider questions about implementation of locally-adapted versions of the developers' model. We shall return to this point when we consider research needs and propose a research agenda for the future.

We shall describe some of our more interesting findings in the remainder of this section. At the outset, we will provide a brief description of the schools and districts that participated in the study. We shall then consider what we learned about the innovation process from the individual items in the instruments. We shall also include some observations here about the degree of agreement among the perceptions of the three different groups who participated in the study -- principals, teachers, and central office staff members. We shall then turn to some of the relationships we uncovered between the level of implementation of the RBS innovations in these schools and a number of variables we perceive as central to understanding the innovation process and its difficulties.

First, a few words about the study participants. The 41 participating schools were located in 33 school districts spread across 21 states. The distribution of respondents can be summarized as follows:

Position	No. of Interviews	No. of Persons Interviewed	No. of Questionnaires Returned
Central Office Administrators	32	40*	34
Principals	37	37	36
Teachers	40	113*	115
Total	109	190	185

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*Two or more persons were interviewed together.

The questions answered by the respondents concerned two specific innovations implemented in their schools: one an RBS innovative curricular program; the other a non-RBS program. The responses with regard to RBS involved three IPI programs: 25 of the schools reported on IPI Mathematics; 13 others reported on IPI Reading; and two others responded with regard to IPI Science.

Why were these participating school systems receptive to these innovations? What factors help us to understand what makes a district willing and able to adopt, implement, and maintain externally-produced innovations?

The data shed some light on these questions.

A significant factor in the explanation would seem to be found in the attitudes of school personnel toward innovations and the outcomes likely to follow from their implementation. Data on these attitudes are summarized in Tables 1 and 2. (The tables show the numbers of respondents in each subgroup and in total who agreed and disagreed with each statement.) The significance of the dependence between response and personnel subgroup (i.e., teachers, principals, and central office staff administrators) was tested by a chi-square test of significance. If the total group yielded a significant dependent, subsequent analyses taking the subgroups in combination were conducted. When only one degree of freedom was involved (a 2x2 table), Yates' correction was used for chi-square calculations.

The overwhelming response of all three subgroups to these statements in all these districts that had implemented innovations was favorable to innovations and optimistic about the improvements to be expected in education, especially from innovations. For instance, 87 percent of the respondents agreed that "...the coming years will bring major improvement in American education," and 87 percent indicated the belief that where innovations are implemented, the schools are "more desirable places to work." The overwhelming majority of the respondents disagreed with statements critical of externally-produced innovations: 80 percent rejected the view that the developers of innovations "...don't really understand problems of working in a classroom", 71 percent disagreed with the complaint that innovations are often "...'cut and paste' activities providing little substantive change." However, principals seemed to perceive innovations in

TABLE 1

Perceptions About The Climate For Innovation

Statement	Group	Number Who		Total	X^2	Group To Group	X^2
		Disagree	Agree				
People who develop innovations don't really understand problems of working in a classroom.	T	85	24	109			
	P	28	8	36			
	C	27	4	31			
	TOTAL	140	36	176	1.320		
A significant problem of American education is that it has not been concerned with innovation until the past few years.	T	47	68	115		T-C	9.939**
	P	16	20	36		T-P	0.035
	C	25	9	34		P-C	4.956*
	TOTAL	88	97	185	11.402**		
It is futile to introduce innovations in schools because they are usually cancelled or lose their funds without a good explanation.	T	89	26	115		T(P+C)	6.394*
	P	33	3	36		T-P	2.740
	C	32	2	34		T-C	3.777
	TOTAL	154	31	185	7.538*		
I think that the coming years will bring major improvement in American education.	T	15	99	114			
	P	3	33	36			
	C	5	26	31			
	TOTAL	23	158	181			
Often innovative classroom practices are simply the result of "cut and paste" activities providing little substantive change.	T	90	23	113		T-P	8.714*
	P	19	17	36		T-C	3.604
	C	21	13	34		P-C	0.268
	TOTAL	130	53	183	11.317**		
Generally, administrators are reluctant to allow teachers to participate in making decisions about important innovations.	T	59	52	111			
	P	22	14	36			
	C	23	10	33			
	TOTAL	104	76	180	3.059		

Group: T-Teachers, P-Principals, C-Central Office Administrators.

"Disagree": The total responses of "strongly disagree" and "disagree".

"Agree": The total responses of "strongly agree" and "agree".

*P=.05; 2df, $X^2 = 5.991$; 1df, $X^2 = 3.841$.

**P=.01; 2df, $X^2 = 9.210$; 1df, $X_c^2 = 6.635$.

TABLE 2

Perceptions About The Implementation Of An Innovation

Statement	Group	Disagree	Agree	Total	X^2
Teachers generally do not fully implement an innovative classroom practice because of the disorganized manner in which they are oriented to the innovation.	T	65	49	114	
	P	16	19	35	
	C	23	10	33	
	TOTAL	104	78	182	3.988
School districts often do not replace old practices with innovations even after a pilot run has been successful.	T	51	57	108	
	P	11	24	35	
	C	11	23	34	
	TOTAL	73	104	177	4.093
Schools where innovations are implemented are more desirable places to work.	T	20	90	110	
	P	1	35	36	
	C	3	29	32	
	TOTAL	24	154	178	
Teachers are too overloaded to spend much time on planning the implementation of innovations.	T	54	58	112	
	P	17	19	36	
	C	20	14	34	
	TOTAL	91	91	182	1.313

Group: T-Teachers, P-Principal, C-Central Office Administrators.

"Disagree": The total responses of "strongly disagree" and "disagree".

"Agree": The total responses of "strongly agree" and "agree".

*$P = .05$; 2df, $X^2 = 5.991$

**$P = .01$; 2df, $X^2 = 9.210$

'cut and paste' terms significantly more frequently than teachers (53 percent of the principals agreed with this statement, in comparison to only 20 percent of the teachers).

The question as to whether or not American education has been innovative until recently and whether or not this has been a serious problem of American education produced no unanimity of responses. However, there was more agreement on the innovation process as a worthwhile undertaking for the present and future. The overwhelming majority of respondents (83 percent) rejected the oft-heard complaint that "it is futile to introduce innovations...because they are usually cancelled or lose their funds without a good explanation." Teachers, however, agreed with this contention more frequently (23 percent) than principals and central office staff (only 70 percent of these two groups together).

The attitudes of school personnel, then, would seem to be an important element of the "climate" that makes a school district receptive to innovation. Whether in fact these attitudes are any different from those held by school personnel in districts that have not implemented innovations is an empirical question in need of testing -- one that cannot be answered from these data. However, our data suggest that these attitudes may be important in making some districts more receptive to innovation than others.

Added support for this interpretation was provided in the interview responses to questions about specific innovations and what led to their adoption. The overwhelming majority of respondents in all subgroups agreed that a positive atmosphere for change existed in each district prior to the implementation of each innovation. Administrators particularly agreed with this statement. The positive atmosphere was described as one in which the teachers and administrators felt the need for a better program and wanted to make a change. The districts were described as generally change-oriented and looking for progressive programs. And too, success with one innovative program such as IPI made them even more receptive to other innovations.

In addition, it is likely that certain patterns of interaction between teachers and administrators may help us differentiate between school districts that are and are not likely to have success in adopting and implementing externally-produced innovations. For instance, in these districts that had implemented innovations, more respondents (58 percent) disagreed that "...administrators are reluctant to allow teachers to participate in making decisions about important innovations." It is interesting to note that sizeable minorities of all three respondent groups agreed with this statement and perceived administrators as reluctant to let teachers participate in decision-making about innovations, and teachers agreed with even greater frequency than administrators. (The subgroup percentages agreeing with this statement are 47 percent of the teachers, 39 percent of the principals, and 30 percent of the central office administrators.)

What happens during the implementation phase that may later affect the chances of an innovation's maintenance after the demonstration period? Even if an innovation has been piloted successfully, it appears that it fails to significantly affect district functioning over the long run. The majority of respondents (59 percent) agreed that school districts tend not to replace all practices. Principals and central office staff agreed with this statement (69 percent and 68 percent respectively) with even greater frequency than teachers (57 percent). These findings are particularly interesting in view of the respondents involved. All these respondents worked in school districts where innovations had been adopted and implemented. Even in such school districts, it appears, there is a strong feeling that innovations, though tested and proven, often fail to replace altogether the old ways.

Why would a successfully piloted innovation have so little long-range impact? Is the problem attributable to inadequate teacher training. Overall, the majority of respondents (57 percent) rejected the view that innovations are not fully implemented "...because of the disorganized manner in which [teachers] are oriented to the innovation." However, it should be noted that 54 percent of the principals tended to agree with this statement. Is the problem one of time and work overload? The respondents split 50-50 percent on whether "teachers are too overloaded to spend much time on planning the implementation." Only central office administrators (59 percent) tended to disagree with this contention.

Perhaps the problem is also traceable to internal and external tensions and pressures that affect willingness to innovate. For instance, 18 percent of the teachers disagreed that schools where innovations are implemented are more desirable places to work. Why is this so? What tensions are created within districts that make innovations seem undesirable to them? When questioned about an IPI innovation in their school or district, internal tensions were reported by 62 percent of the teachers, 68 percent of the principals, and 47 percent of the central office administrators. Jealousy among schools or within the school itself was frequently reported. Other factors contributing to internal tensions cited by the respondents were: (a) teacher anxiety and apprehension, (b) teacher fear of being forced into IPI, (c) fear of more work for teachers, (d) conflict with existing programs, (e) increased noise and confusion in classrooms, (f) teacher opposition to reductions in teacher staff for aides, and (g) one school or program seen to be getting funds at the expense of others.

Internal tension was reported less frequently for the non-IPI innovation. A minority of each subgroup -- teachers (41 percent), principals (23 percent), central office administrators (42 percent) -- reported internal tension for this innovation, which, in many cases, was implemented after the IPI innovation. Many of the same contributing factors mentioned for the IPI innovation were repeated here. Fear of technology, fear of teacher evaluation, central office pressure, and threat to academic freedom (particularly the teacher's freedom to determine sequence and methods) were additional factors mentioned.

Though internal tensions may be a serious problem for the innovation process, external pressure during the implementation of an innovation was seldom reported by our respondents. External pressure was reported more frequently in relation to the IPI innovation than the non-IPI innovation, and more frequently by teachers than principals or central office staff, but the range of percentages for any subgroup reporting external pressure on either the IPI or non-IPI innovation was only 8 percent to 32 percent. Where external pressure was reported, the more frequently cited pressure was from parents, sometimes for the innovation and sometimes against. When community groups were reported to have exerted pressure, it was for better programs -- i.e., for innovations.

From what sources do school personnel obtain information about externally-developed curricular innovations? The sources most frequently cited were: professional publications, professional meetings and conferences, direct contact with publishers, university courses and graduate programs, and visits to other schools. The respondents also frequently mentioned one another -- teachers learned about innovations from other teachers, from principals and from the central office; principals mentioned other principals and the central office staff; the central office administrators mentioned various members of the local staff. Interestingly, ERIC was mentioned very infrequently.

When asked to identify and rank school district personnel having the best information about externally developed innovations, principals were mentioned more frequently by all three groups of respondents. When the data were analyzed in terms of rankings on "best information" rather than simply frequency of mention, those ranked most highly (even above principals) were the district's superintendent, assistant superintendent, director of elementary education, director of federal programs, and a district curriculum developer or specialist. (See Table 3.)

In addition to these questions about the best internal district sources of information about innovations, the respondents were asked to indicate who had been responsible for the initial thrust to get each innovation adopted. Regardless of which innovation or which group of respondents we

TABLE 3

School District Personnel Ranked As Having The Best Information About Externally Developed Innovations

	The Five Positions	
Respondents	Named Most Frequently	Ranked Most Highly
Teachers	1. Principal	1. Superintendent
	2. Superintendent	2. Director of Elementary Education
	3. Assistant Superintendent	3. Assistant Superintendent
	4. Teacher	4. Director of Federal Programs
	5. Director of Elementary Education	5. Principal
Principals	1. Principal	1. Superintendent
	2. Assistant Superintendent	2. Curriculum Director/ Specialist
	3. Teacher	3. Assistant Superintendent
	4. Superintendent	4. Director of Elementary Education
	5. Reading Coordinator or Specialist	5. Principal
Central Office Administrators	1. Principal	1. Superintendent
	2. Assistant Superintendent	2. Assistant Superintendent
	3. Superintendent	3. Director of Elementary Education
	4. Curriculum Director/ Specialist	4. Curriculum Director/ Specialist
	5. Director of Elementary Education	5. Principal

consider, the principal was named more frequently. Central office administrators tended to be named with second greatest frequency. Other responses involved various combinations of teachers, principals, and central office administrators.

The persons identified as making the initial thrust for adoption were reported to have done one or more of the following: (a) visited other schools demonstrating or implementing the innovation and took teachers on visits, (b) attended workshops on the innovation, (c) brought in films and materials about the innovation, (d) discussed the idea with teachers, (e) set up special in-service sessions for staff, (f) wrote a funding proposal, (g) talked with central office administrators, and (h) presented the idea to the board of education.

A series of questions were asked about the responsibilities teachers, principals, and central office administrators should have ideally in the innovation process. There was a high degree of agreement among the respondent groups about these responsibilities: When an innovation is being considered and adopted, teachers should see the innovation implemented in classrooms in other schools and become knowledgeable about it -- knowledgeable enough to be able to experiment with it in their classrooms and compare it to other programs. Teachers should play a major role in the adoption process and in the decision itself, including the prerogative to decline to participate in the program. This teacher "veto" power was concurred in by all three groups, but was expressed more strongly by teachers.

The responsibilities of principals during this adoption phase were, according to our respondents, to initiate, stimulate, and facilitate.

Principals should be aware of innovations, observe them in action, and arrange for teachers to observe them. They should gather information and serve as resource persons in providing supportive guidance to their staff. They should know the needs of their students and the abilities of their staffs, and should identify the resources needed to conduct the program. And, too, the principals must sell the program and obtain the backing of his/her teachers, the central office, and the community. All agreed that the principal was the key person in the process and must provide the necessary leadership. And, given that role, principals should make the final decisions about whether or not to implement particular innovations in their schools.

The roles of central office administrators were conceived as largely supportive of teachers' and principals' efforts. They should be familiar with innovations that are available and call attention to them. They should evaluate the programs for consistency with board policy and determine what can be learned about their likely long-term effects and costs. They should present the programs to the board and set up the approval procedures for making the adoption decision. In the course of implementation, they should provide the time and money needed for in-service training and be willing to allow mistakes to be made.

During the implementation phase, there was strong agreement that teachers should be thoroughly familiar with the program and dedicated and committed to it. They should work closely with their students to prepare them for the program and also reassure parents about the innovation. Their responsibilities were also seen to include working closely with the principal and outside experts to evaluate the program. One area of disagreement among respondents was the extent to which teachers should try to implement the innovation precisely as designed and packaged by the developers, or whether instead they should, after giving the program a fair chance as written, adapt the materials to suit their needs. Central office administrators tended to feel that the programs should be implemented as written, whereas teachers and principals were more inclined toward local adaptation of the materials.

The overall responsibility for implementation of the program was agreed by all to rest in the hands of the principal. This responsibility included: preparing budgets, organizing resources, ordering materials, setting up inservice training for the teachers, monitoring and evaluating the program, consulting and evaluating the program, consulting with teachers about problems, and providing encouragement and support for the teachers. The principals' responsibilities were also seen to include keeping the central office informed and obtaining community support for the program.

The functions of central office administrators in this phase were described as: providing resources (time, money, and personnel) and support for the program and encouragement for the staff; developing criteria for the program's evaluation, working with evaluators, and communicating with teachers and principals about the progress of the program; and interpreting the program to the community.

The respondents were asked a series of questions about the people who participated in the various decision points in the innovation process and how much influence each category of participants had. Although all these respondents were involved in their districts, they were not all knowledgeable about the roles of various groups in the decisions made. This was especially true of teachers. Where respondents did provide answers to these questions, there was usually close agreement in their responses. Table 4 summarizes the data on the participation in the adoption process.

One is immediately struck by the variability among schools revealed by these data. For instance, as few as one or as many as 50 or 60 teachers participated in the adoption process in different schools; as few as one or as many as 350 to 550 parents participated; as few as one or as many as 50 representatives of community groups participated. However, the large-scale participation characterized the pattern in very few of the schools. On the average, the participants in the adoption process included the principal, one central office administrator, and 10 to 12 teachers. Rarely listed as participants in the adoption process were representatives of community organizations, or parents. However, for the few cases in which they were listed, the average number of participants of each category can be summarized as follows: 8 to 13 parents, five to nine representatives of teachers' organizations, and one representative of a community organization.

The ratings of influence on the adoption process indicate that principals clearly have the greatest influence on the adoption process. Teachers and central office administrators were rated second or third in influence: in some cases teachers were rated as more influential; in other cases central administrators were perceived as more influential. In general, ratings of little or no influence were given to representatives of teachers' organizations, parents, and representatives of community groups. Only central office administrators tended to perceive representatives of teachers' or-

TABLE 4

Participation In The Adoption Process

	IPI		Non-IPI Innovation	
	No. of Participants		No. of Participants	
	Range	Median/Mode	Range	Median/Mode
Teachers	1-60	Median = 12	1-50	Median = 10
Principals	1-7	Mode = 1	1-9	Mode = 1
Central Office Administrators	1-8	Mode = 1	1-8	Mode = 1
Representatives of Teachers' Organizations*	1-23	Median = 5	1-23	Median = 9
Parents*	1-350	Median = 13	1-550	Median = 8
Representatives of Community Groups*	1-15	Mode = 1	1-50	Mode = 1

*Statistics given for these categories summarize the data for the case where these categories were mentioned. However, in most cases, no mention was made of these categories of participants.

ganizations as exerting any significant influence, and then usually focused on protecting teachers' security.

Table 5 summarizes the obtained data on participation in the implementation stage of the innovation process. There is little difference in the pattern of the data for the two innovations: principals were rated as having the greatest influence on the implementation process, followed next by teachers, and then central office administrators. Neither teachers' organizations nor community groups played much of a role at this stage. The usual number of parent participants was 6 to 12 (in a few rare cases, though, as many as 50 to 90 parents participated).

Once an innovation has been implemented and the demonstration phase is passed, who participates and has influence on the critical survival decision of terminating, continuing, or even expanding the scale of an innovation within the district? Most teachers (51 percent) felt that they had little or no influence on financial decisions affecting their schools, but on non-financial matters a majority (54 percent) felt that they exerted "some" or "moderate" influence. Most principals (67 percent) perceived that they had "strong" influence on continuation decisions affecting their own schools so long as financial matters were not involved. However, one financial questions entered the decision, there was less agreement among the principals as to how much influence they had on these continuation decisions: 36 percent felt they had "strong" influence; 19 percent rated their influence as "moderate"; and 19 percent stated that they had "little or no influence" on financial decisions involving continuing innovations in their schools.

TABLE 5

Participants In The Implementation Of Innovations

Group:	Teachers		Principals		C.O. Administrators	
Innovation:	IPI	Other	IPI	Other	IPI	Other
Number* of participants in the planning phase.	8-10	5-10	1	1	1	1
Perceived influence of these participants (0-4)**.	3.3-3.4	3.4	3.6-3.7	3.3-3.8	3.0-3.3	2.8-3.3
Number* who actually did the work required to install and use the innovation, but not involved in the planning.	6-11	5-10	1	1	1	1
Number* who installed and use the innovation but not involved in the adoption decision.	9-10	9-33	1-4	1-4	1	1

*Number: The range given for teachers is based on the median number of teacher-participants identified by each respondent subgroup. The number of principal-participants and of central office administrator-participants is based on the mode number of participants identified by each respondent subgroup.

**Influence: The rating given is the range of mean ratings assigned by each respondent subgroup.

When continuation decisions involved district-level innovations, most teachers (66 percent) perceived that they had little or no influence. A considerable number of principals (36 percent) also felt that they had little or no influence on district-level decisions, but a majority (53 percent) perceived that they had "strong" or "moderate" influence on these decisions. Most central office administrators believed that they had "strong" or "moderate" influence on these decisions.

Respondents reported a number of means they had found effective in influencing non-financial decisions for continuing innovations, including: (1) publicizing the gains produced in student achievement and attitudes; (2) inviting parents to observe the program and keeping them informed of the program's accomplishments; (3) showing how enthusiastic the staff is about the program, how committed they are to it, and how confident they are in its effectiveness; and (4) creating good communication links to the board, the superintendent, parents and the community, and other principals and teachers in the district.

When financial decisions were involved, our respondents emphasized the importance of "selling" the program to the board of education. Central office administrators reported the effectiveness of relating evaluation data to district priorities and especially using cost-benefit analysis. Some suggested that the threat of discontinuing a popular innovation had, in their districts, produced sufficient public pressure on the board to assure continuance of the innovation.

As an agency that had supplied field consultants to work with school districts in implementing IPI, RBS was particularly interested in the significance school personnel attached to the services of such consultants. Not all respondents were aware of these consultants working with school personnel in their districts. This was especially true of teachers. Those respondents who did know of such consultants working with the district reported them almost as frequently for the non-IPI innovation as they did for IPI. It would appear that the experience of these districts with RBS-type consultants has created a favorable impression about the role such consultants can play: 87 percent of the respondents indicated the belief that the services of an RBS-type consultant are essential during the first year of implementation of a classroom innovation. Of those respondents who did not see the need for school consultants, almost all acknowledge that some form of assistance was needed. For planning the implementation of an innovation, 73 percent of the respondents favored a joint effort by consultants and school personnel; only 23 percent felt planning should be done internally, by school personnel alone.

The respondents listed a number of ways in which an RBS-type field consultant might help the school during the first year of implementation. Teachers suggested that the consultant (1) observe and have follow-up conferences with each teacher; (2) give reinforcement and be aware of tensions; (3) work directly with teachers on the mechanics of the program, classroom management, and record keeping; (4) conduct demonstration classes with students; (5) show how the program can be adapted to local needs; (6) tell how to relate the program to other areas; (7) help with supply problems; (8) suggest specific supplementary materials; and (9) show how to use personnel (i.e., aides and a floating teacher) better.

One principal noted that "the consultant is the most important part of the program." Principals suggested that the consultant (1) assist in training the teachers, especially in the initial stages; (2) identify strengths and weaknesses in the implementation and provide honest feedback on the status of the program; (3) keep teachers on their toes, but be supportive; (4) show how best to use classroom aides and ways to work without them; (5) assist the principal to become more effective to the program; (6) provide or help develop a planning model, a monitoring system, and a model for evaluating both the process and product of the program; (7) act as a liaison between the school and supplier; (8) share ideas and experiences gathered from other schools using the program; and (9) help adapt the program to local needs.

Central office administrators added that the consultant should: (1) identify problems and possible solutions; (2) provide alternative strategies; (3) be sensitive to the needs of different districts; (4) help teachers run the program as it was intended; (5) help in the management end of the program -- budgeting, materials, monitoring, and evaluation; (6) help orient the community; and (7) present an evaluation report to the central office.

RBS has been strongly committed to training as a critical component of implementing any classroom innovation. We were therefore interested in determining the kinds of training respondents perceived as necessary to assist them in the innovation process and how they rated the training they had received. All respondents were asked questions about how well they felt their college training had prepared them for the competencies needed to get innovations adopted and implemented. Regardless of which subgroup or which phase of the innovation process is considered, the pattern of responses is the same. Clearly, if these participants are at all representative, educators are not being prepared for change processes in general or for coping with innovations in particular. Most respondents indicated that their preparation had been "poor."

Most respondents reported that training sessions were conducted during the implementation of innovations in their schools (95 percent of the IPI-related responses; 66 percent of the non-IPI-related responses). The IPI-related training in particular was reported as high in quality. On a scale of 1-4 (4 being high), the respondents rated the quality of the IPI training sessions as 3.4 to 3.5; the non-IPI training was rated 2.8 to 2.9.

RBS has believed that the kind of training needed to help school personnel cope with innovations is broader than the specific training needed to familiarize them with a given innovation. Therefore, it was gratifying to see what our respondents had to say about the kind of training they viewed as necessary to help them fulfill their roles in the innovation process.

Several areas of training were outlined as necessary for teachers. To help them in the adoption phase of the innovation process, teachers needed to have knowledge about the innovation and its philosophy and also strength in the subject area of the innovation. But in addition, the following areas were mentioned: understanding "change" and how to make curriculum changes; human awareness and ability to work with other people; basic knowledge of curriculum and instruction; knowledge of current trends in education; knowledge of children's needs and how they learn; and knowledge of observation and evaluation techniques. Many respondents placed considerable importance on the need for teachers to have an open attitude toward change and to have a positive self-concept. During the implementation stage, emphasis was placed on the need for training specifically geared to the innovation itself, with particular attention to classroom operation, management, and control of the new techniques. Also stressed were needs assessment, diagnostic skills, and sensitivity to the needs of students.

The training needs of principals were seen particularly to emphasize leadership competencies: leadership training for bringing about change; interpersonal skills, organization and evaluation skills; and public relations and communication skills. During the implementation stage in particular, principals were seen to need the kind of leadership training that would permit them to train teachers, conduct workshops, and organize personnel. In addition, various general areas of background training were seen as useful: for instance, knowledge of curriculum and current trends in education. An open attitude and receptivity to change as well as background of creative classroom experience were indicated as of great importance for helping principals to work with teachers engaged in the innovation process. During the implementation process, training focused on how to install an innovation was seen as particularly important along with the kind of assistance that would thoroughly familiarize him with the program and how best to administer it.

Central office administrators were also seen to be in need of various kinds of general training to prepare them for the adoption process: knowledge of curriculum, supervision, and current trends in education;

skills in needs assessment, research, and evaluation; and knowledge of budgeting and financial management. In addition to training in understanding the specific innovation, emphasis was placed on training that would promote a number of critical attitudes: willingness to accept change, to take risks, and to assume responsibility, and open-mindedness. During the implementation stage, the training needs of central office administrators were described as: how to provide supervisory support, knowledge of management systems, and understanding and sensitivity to the ramifications of change.

The information gathered from these training-related questions should be useful in helping RBS and other agencies design training programs to facilitate the innovation process. Equally useful, especially to school district administrators, are the responses to a series of questions about the rewards and liabilities associated with the innovation process.

The questionnaire provided lists of possible rewards and liabilities perceived by the respondents to accompany participation in implementing an innovation. The respondents were asked to rank the various items in the lists. The results are summarized in Table 6. There was fairly close agreement among the subgroups. The subgroups all agreed on their first and second most desirable rewards, "increased student achievement" and "professional or personal satisfaction." Teachers ranked "additional funds...." third, while principals and central office administrators chose "released time for planning."

In the interviews, respondents were requested to suggest other rewards, not included in the questionnaire listing. Teachers frequently listed

TABLE 6

"Desirable Rewards" And "Liabilities" In Implementing Classroom Innovations

	Aggregate Rank Order				Wc
	Teachers	Principals	C.O. Adm.	All	
Desirable Rewards:	N=110	N=35	N=34	N=179	
Increased student achievement	1	1	1	1	
Professional or personal satisfaction	2	2	2	2	
Additional funds for classroom materials and activities	3	4	4	3	
Released time for planning	4	3	3	4	
Increased salaries	5	5	5	5	
COEFFICIENT OF CONCORDANCE					.924**
Liabilities:	N=111	N=36	N=24	N=181	
Extra work beyond classroom duties	2 2	1 1	1 1	1 1	
Creation of organizational problems	1	2	2	2	
Resistance from community	4	3	3	3	
General disappointment if there is failure in the implementation	3	4	4	4	
COEFFICIENT OF CONCORDANCE					N/A

**p<.01

(1) improved student attitude and self-image, (2) greater student self-direction, and (3) positive parent reactions. Principals noted (1) improved student self-image, (2) increased student interest, (3) esprit de corps, increased teacher commitment, (4) provision of teacher aides, (5) greater community involvement, and (6) more recognition for the school. Central office administrators also listed gains in the affective domain and recognition for the district. They noted the aura of being connected with innovative programs as a desirable reward.

"Extra work...." was seen as the number one liability by principals and central office administrators. Teachers narrowly ranked "creation of organizational problems" above "extra work...." in first place. Teachers were frustrated with classroom management and supply problems in a number of schools. Teachers also disagreed, by a narrow margin, with principals and central office administrators in their ranking of "resistance from community" and "general disappointment if there is a failure...." The administrators saw "resistance...." as the greater liability. (See Table 6.)

Most (76 percent) of the respondents reported that their school districts did not provide special incentives for the successful implementation of innovations. In those districts where incentives were provided, the respondents listed (1) pay for attending workshops, (2) summer pay, (3) teacher aides, (4) released time, (5) additional materials, (6) trips for teachers, (7) in-service credit, (8) scholarships, (9) mini-grants for research, and (10) additional salary.

We had assumed that a critical element in the process of evaluating an innovation prior to adoption would be observing it in operation in another school. Table 7 summarizes responses to our questions about whether or not the innovations had been observed prior to adoption. In the case of IPI, most of the respondents (57 percent) reported that they had observed the innovation, but in the case of the non-IPI innovation, only 32 percent had seen the innovation in operation. Principals and central office administrators were more likely than teachers to have observed the innovation.

In a significant number of cases, principals were perceived to prefer a limited trial of an innovation prior to adopting it school-wide. Reasons listed for preferring a limited trial were: (1) cost (lack of funds for wider adoption); (2) a desire to see if the innovation would work; (3) a desire to give teachers a choice by involving only those teachers most willing to try it; (4) a desire to iron out the "bugs" on a small-scale trial permitting better control; and (5) a desire to use the trial as a way to train teachers to help other teachers later. Reasons for not preferring a limited trial were: (1) confidence in the program; (2) greater ease of adopting an innovation school-wide rather than in piece-meal fashion; (3) lack of time for a trial, and (4) the opening of a new school with a totally new program.

The IPI innovation was adopted for a variety of reasons, such as: (1) a desire for an individualized program; (2) dissatisfaction with the present program; (3) a desire for a continuous progress program; (4) the availability of predeveloped materials; (5) perception of the program as a complete package with detailed plans and staff training included; and (6) perception of the program as "teacher proof." Recommendations from teachers, principals, and superintendents were factors supporting the adoption. Some teachers, however, felt that the program was adopted in their schools because

TABLE 7

Observation Of Innovations Prior To Their Adoption

	Observation Prior To Adoption						
	"Yes"		"No"				
Respondents	Fr.	(%)	Fr.	(%)	Total	X^2	
IPI INNOVATION							
T - Teachers	49	(44)	62	(56)	111	T-P	17.647**
P - Principals	31	(86)	5	(14)	36	P-C	1.669
C - Central Office Administrators	21	(70)	9	(30)	30	T-C	5.324**
TOTAL	101	(57)	76	(43)	177	T-P-C	22.013**
OTHER INNOVATION							
T - Teachers	21	(26)	59	(74)	80	T-P	0.023
P - Principals	9	(30)	21	(70)	30	P-C	2.759
C - Central Office Administrators	13	(56)	10	(44)	23	T-C	6.097*
TOTAL	43	(32)	90	(68)	133	T-P-C	7.579*

*P=.05; 2df, X^2 = 5.991; 1df X^2_c = 3.841

**P=.01; 2df, X^2 = 9.210; 1df X^2_c = 6.635

of a central office mandate.

The non-IPI innovation was adopted for similar reasons, e.g., desire for individualized program and dissatisfaction with present program. Desires for a consistent school-wide program, for an effective program, and for a prepackaged program also were cited as reasons for adoption. Recommendations of support from teachers, principals, and superintendents and the influence of IPI also motivated the adoption of the non-IPI innovation.

Once an innovation is implemented, to what extent are its process and product evaluated? Table 8 summarizes the reports provided of the evaluations of these innovations. Significantly higher percentages of respondents reported evaluations of IPI than the non-IPI innovation, but a majority of respondents reported process and product evaluations for both and a majority or near majority reported the evaluations as "good" to "extensive" in thoroughness.

TABLE 8

EVALUATION OF INNOVATIONS

			IPI	Non-IPI Innovation
1.	(a)	Respondents reporting process evaluation.	66%	53%
	(b)	Respondents reporting product evaluation.	84%	56%
2.	(a)	Respondents reporting process evaluation who judged the evaluation "good" to "extensive" in coverage.	58%	47%
	(b)	Respondents reporting product evaluation who judged the evaluation "good" to "extensive" in coverage.	53%	50%

For both innovations, the innovation process was evaluated by informal means -- teacher discussions, observations, attitude surveys, and questionnaires to students, teachers, and parents. The evaluation of the product depended primarily on achievement tests (usually standardized tests) and attitude measures. Observation and teacher-principal evaluations were also used. In a few instances, pre- and post-test comparisons were made and results from the program were compared to those from other district programs.

Respondents who reported that the process had not been evaluated cited a variety of reasons: (1) they see no need to do a process evaluation; (2) suitable instruments were not available; and (3) there were other pressures and no time. In cases where the product had not been evaluated, the reasons offered were: (1) no standards were available to judge effectiveness; or (2) no suitable instruments were available (standardized tests were not considered valid for this purpose).

The question of whether R&D products are implemented exactly as designed by curriculum developers or adapted to locally-perceived needs is an important question that we considered earlier. In answer to our questions about this, 65 percent of our respondents indicated that IPI was implemented exactly as recommended. Precisely the same percentage gave this response for the non-IPI innovation. However, some of these respondents qualified their remarks as follows: (1) the program was implemented as recommended in the first year but changed in the second year; (2) supplementary material was used; (3) the grouping pattern was changed; and/or (4) an alternate program was set up for students for whom the IPI program was not suited. Where respondents reported local adoptions, the changes made included the following: the district (1) also used supplementary material, (2) adjusted the time schedule, (3) operated with fewer aides than desirable, (4) did not use all the prescribed materials -- they either were not available or were too costly, (5) changed the record keeping forms, and/or (6) used volunteers instead of paid aides. Some teachers reported that changes were made because they felt IPI reduced their role to purely mechanical tasks. Similar, but often less specific, comments were made about the adoption of the non-IPI innovation.

Observers from RBS sought to establish the extent to which IPI innovations had been implemented in the schools. An instrument called Consultant Diagnostic Instrument -- i.e., a checklist of features of each IPI innovation as developed by its designers -- were used to record observations of IPI in the participating schools. If 90-100 percent of the features were observed, the school was judged to have a "high" degree of implementation; from 75-89 percent was rated as "moderate" implementation; below 74 percent was judged "low" implementation. Table 9 summarizes the resultant ratings.

TABLE 9

Degree Of Implementation Of Three IPI Innovations

	Degree of Implementation			
	High	Moderate	Low	Total
IPI Mathematics	4	14	7	25
IPI Reading	3	8	6	17
IPI Spelling	4	1	6	11
TOTAL	11 (21%)	23 (43%)	19 (36%)	53

Only 21 percent of the implementations were rated as "high" in adherence to the developers' guidelines, but the combined "high" and "moderate" ratings is similar to the percentage (65 percent) of respondents who reported that the IPI innovation was implemented "exactly" as recommended -- suggesting that some degree of adaptation is considered inevitable and not significantly affecting the developers' model.

However, our concern with getting the optimal payoff from the R&D investment represented by such externally-developed innovations suggested that degree of implementation was an important consideration that we should explore in greater depth. If R&D products are conceived as totally designed and tested products for intervention into school systems, then implementation of the products precisely in accord with the developers' recommendations may be the critical influence on success or failure. Can developers facilitate a high degree of implementation by functioning in particular ways? Are some school districts more predisposed to this kind of interface than others? What sorts of operational and attitudinal variables are critical here?

To explore these issues, we correlated the school ratings on degree of implementation of IPI with a number of key variables in the adoption and implementation phases of the innovation process. Table 10 summarizes a few of the relevant correlations. None of the variables investigated were significant in explaining district-to-district variability in level of implementation of IPI.

Further evidence along the same lines is apparent from the data on two other questions of particular concern to RBS: How good was the training

TABLE 10

Sample Correlations Between Level Of Implementation
And Selected Variables

Variable	Correlation with Level of Implementation of IPI
Who made the initial thrust for adoption of the innovation -- teachers, principals, central office administrators, or other groups?	-.04
Was the innovation funded wholly by the district or jointly by the district and another agency?	.17
Did the staff perceive themselves as adopting or adapting the innovation?	.22
Should implementation be planned by an external agency, the district alone, or jointly?	.16

provided to support the implementation of an innovation? Does successful implementation need an RBS-type consultant during the first year? Tables 11 and 12 summarize these data in relation to level of implementation of IPI. The data suggest that satisfaction with the training provided district personnel was somewhat constant across levels of implementation. Similarly, the pattern of responses to the question of whether successful implementation needs an RBS-type consultant during the first year was the same across the three levels of implementation.

Equally constant across levels of implementation were attitudes about who would make the best development team if a district wants to develop its own innovative practices for the classroom -- administrators, a team of teachers, teachers and administrators, or district personnel in conjunction with an R&D agency. These data are summarized in Table 13. Regardless of which group of school personnel was asked the question of whether the level of IPI implementation in their district was low, moderate, or high, the responses tended to be the same. All rated the principal as the best developer for a successful innovation. R&D agencies, working alone or with district personnel, were given the second highest ratings. Teachers tended to be rated last.

It would seem, then, that the various attitudinal, planning, and implementation variables we examined were neither significantly related to the degree of implementation of IPI nor helpful in distinguishing between districts that could be rated as high, medium, or low in implementation.

We suspect, however, that these weak findings are attributable to the measures used and the research methodology employed. We would argue most

TABLE 11

Showing The Rating (4 to 1) Of Training Related To Levels Of Implementation

Level of Implementation	Rating of Training*
Low	3.2
Moderate	3.5
High	3.8

*Training was rated by teachers on a scale of 1-4 with 4 being "high."

TABLE 12

Frequency Responses Of Teachers, Principals, And Central Office Administrators Regarding The Need Of An RBS-Type Consultant For Successful Implementation Of An Innovation During Its First Year

Level of Implementation		Yes	No	Don't Know	Total
LOW	Teachers	9	4	1	14
	Principals	3	0	0	3
	C.O. Administrators	4	1	0	5
MO-DERATE	Teachers	31	0	6	37
	Principals	9	0	1	10
	C.O. Administrators	8	0	4	12
HIGH	Teachers	9	0	0	9
	Principals	3	0	0	3
	C.O. Administrators	3	0	0	3
Total		79	5	12	96

TABLE 13

Best Development Team

Teachers' Ratings

Level of Implementation	1	2	3
Low	Principal	R&D	Teacher
Moderate	Principal	R&D	Teacher
High	Principal	R&D	Teacher

Principals' Ratings

Level of Implementation	1	2	3
Low	Principal	R&D	Teacher
Moderate	Principal	R&D	Teacher
High	Principal	R&D Teacher	Teacher

Central Office Administrators' Ratings

Level of Implementation	1	2	3
Low	Principal	R&D	Teacher
Moderate	Principal	R&D	Teacher
High			

strongly against interpreting our data to mean that the propositions we formulated have been disproved. We will say more about these matters in our conclusions and appendices. At this point, it would seem useful to summarize how we think the data reported here tend to support these propositions in at least a general way.

Support for the "single building strategy" and especially the key role of the principal pervades the data. The principal is rated by virtually all personnel as the key person involved in all phases of the innovation process and as the most important individual in determining the success of an implementation attempt. Therefore, of critical importance are the change-oriented perspective of the principal, his awareness and familiarity with innovations, his leadership capabilities in persuading others of the value of a proposed innovation, and his skills in managing the change process. It would seem, then, that if the change process is to be successful in education, linking change agents must focus a considerable portion of their energies on communicating with, training, and providing support for principals in their roles as change managers.

The data point to some of the areas of school management that require concerted attention in the programs of linking change agents who are working with principals to support the innovation process. Training for teachers and administrators is of major importance, a priority linking change agencies tend to recognize. However, equally important is development of appropriate management strategies that reinforce the rewards of the innovation process and overcome the liabilities. Unless attention is given to teachers' anxieties, organizational tensions created by the change process, and concrete operational problems that burden teachers engaged in the innovation process, innovations will likely be ineffective in implementation and short-lived in impact.

The data also underscore the significance of the political aspect of the innovation process. They suggest that innovations tend to be terminated rather than maintained after the first few years of trial adoption because so little commitment to them has been generated during the initial years. Adoption decisions tend to be made by the principal and a few administrators, with highly selected rather than widespread participation from other groups. Equally limited participation characterizes decision-making during the implementation stage. Although our analysis did not test this directly, it would seem reasonable to surmise that lack of strong commitment is the outcome, leaving the innovation with few strong advocates to fight for it when a termination decision is in the offing.

Our data suggest, then, that innovations fail to have long-term impact because the innovation process is not adequately managed.

VI. CONCLUSIONS

This exploratory investigation has provided at least suggestive support for the RBS model of the innovation process and its difficulties, as described earlier in Section III. The model is, in a sense, two models -- (1) a normative model of the innovation process as we think it should proceed if it is to be effective and (2) a descriptive model of the process as it does in fact function. The models are in need of further elaboration, and a considerable amount of research is needed before they can be validated and translated into concrete tools for helping school districts manage the changes they are implementing. With this qualification in mind, the models can be reviewed here and discussed in terms of their implications for practitioners, policymakers, and researchers.

The models describe the innovation process in terms of four stages: pre-planning, training and implementation, evaluation, and updating. In the normative model, pre-planning should involve needs analysis and implementation analysis -- how well the innovation relates to district needs, what outcomes are to be expected, and what resources, operational, organizational and personnel requirements are needed for successful implementation. In the normative model, this is also a phase requiring extensive political activity -- discussion of the proposal and its implications with all groups in the district having a vital interest in the innovation, and the changes it might bring (e.g., teachers, administrators, school board members, parents, and community groups). This is the point in time when the commitment of these groups to the innovation process can be generated, and this requires their involvement and input. Without such widespread commitment, it is likely that the innovation will either fail to win adoption or more likely will be terminated after the initial trial period.

The descriptive model of what actually happens during this pre-planning period suggests weaknesses of the process as it actually takes place. Adoption decisions tend to be made by principals with little consultation or discussion with others. Given the day-to-day pressures and problems faced, it is small wonder that little needs analysis or implementation assessment is done and virtually no planning. The lack of consultation tends to mean little political attention to soliciting the kind of long-range support needed to sustain the innovation effectively in the implementation period or to maintain it when soft funding is terminated.

RBS would contend that considerably more attention needs to be devoted to this stage if problems that crop up in later stages are to be avoided. Agencies like RBS that perform the linking-change-agent role need to expand their technical assistance roles in this stage and view the informal training they provide to principals in this stage to be as critical as the formal training provided in the next stage. The practitioner must become sensitive to the critical nature of the groundwork that is or is not laid at this point in the process. Policymakers who fund the work of linking change agencies must provide the resources needed to expand the technical assistance function at this phase in the process. And researchers have a fruitful area of investigation to explore, e.g., the precise nature of the relationships between various types of technical assistance and future success of the innovation process. What types of political strategies work best in various kinds of school-community contexts? What types of needs analyses and implementation analyses have what outcomes? Until such research is done, we cannot provide practitioners with the kinds of concrete help they need in relating to externally-produced innovation.

The second phase of the innovation process, training and implementation, is fraught with major problems in change management. In the normative model, training should not only be provided in implementing the specific instructional strategies required by the innovation, but also in handling the management needs of the changes required. Along with that training in the normative model, linking change agents should be able to provide school districts with technical assistance in creating effective incentive structures to support the innovative process. Our data contain a good deal of specific information about both the rewards and liabilities in the innovation process perceived by school district personnel. Successful implementation requires not only overcoming the initial attitudes of school personnel that make them resistant to innovation, but also dealing with the real problems those innovations pose for them in performing their jobs in a manner they find satisfying.

Our descriptive model of this phase, however, suggests that although RBS-type consultants are frequently used to provide training at this point in the process, little of the other kinds of necessary technical assistance are provided. And, more often than not, the training provided is tied to the specifics of an innovation rather than to the change process in a general way.

Of all the stages in the innovation process, this training and implementation state is given the greatest amount of thought by participants in the process. However, this stage is so fraught with difficulties that it would seem to require many times the amount of attention it now receives. Practitioners are in need of concrete strategies for dealing with such management problems as teacher anxieties, fear of work overload, and the like. RBS-type linking change agents need to develop such strategies. And policymakers concerned with the innovation process must provide the funds for expanded research and development in this area. Researchers must test out alternative incentive structures for overcoming resistance to innovations and implementation problems. We cannot develop concrete strategies on the basis of our data. But our data do suggest the specific rewards and liabilities perceived by participants in the innovation process, and therefore provide a beginning for design of a policy-relevant R&D agenda.

The third phase of the innovation process, evaluation of the innovation, provides some further illuatrations of the gaps between the normative and descriptive model, but less serious gaps than those indicated for the earlier phases. Ideally, we believe, school districts should have their own internal evaluation capabilities and design evaluations of the effectiveness of a given innovation to meet their particular needs. According to our normative model, evaluation planning should be done along with planning for the implementation stage and should have equally widespread participation of all interested parties. Monitoring feedback should be continuous and findings should be available whenever needed. Formal reporting should be tuned to meet the district's decision needs. And by the time a decision must be reached on termination or maintenance of an innovation, a considerable body of evaluative data should be available on both program impact and the effectiveness of various implementation alternatives.

In fact, however, evaluations are given only minimal attention and the kinds of data that should be used to make decisions on termination or maintenance are rarely available. Few districts have the internal capabilities to conduct program evaluations. They tend to employ external evaluators. According to our data, both process and product evaluations are conducted generally. A majority or near majority of respondents rated the evaluations as "good" to "extensive" in thoroughness. However, whether or not decisions as to the fate of the innovation are determined by the outcomes of these evaluations is another matter, and there is suggestive evidence that such data are not significant determinants of decision outcomes.

Although our respondents have generally rated the work of external evaluators as thorough, we believe that the most satisfactory way to provide evaluative data attuned to district needs is to develop internal evaluation capabilities. We believe that linking change agents like RBS should provide technical assistance to help districts develop these capabilities. Therefore, this role must be planned for in the design of technical assistance programs, and policymakers must provide the needed resources to permit this development. Important research questions involve the relative effectiveness of internal and external evaluation approaches and how best to structure an internal evaluation function. We would like to be able to make concrete suggestions to practitioners on how best to do this, but until research findings on these questions are forthcoming, we can simply argue for the hunches that comprise our normative model.

In the final phase of the innovation process, the normative model calls for use of evaluation findings to update plans -- i.e., either to terminate an innovation where it proves ineffective or to revise its implementation where maintenance seems warranted but improvements are in order. In reality, however, our descriptive data suggest that the decision is usually one of termination rather than maintenance. And, the data suggest, the basis of the decision is usually fiscal -- when soft monies end the burden to support the program is transferred wholly to the district. Innovations tend to be costly. With costs as a strong point against an innovation, and few advocates to fight for an innovation on educational grounds, the decision to terminate is almost inevitable. This outcome, however, might not be inevitable if the change process had been managed with more political acumen from the outset.

The implications for practitioners are obvious. The precise strategies to use, however, are less so, and we have been able to only suggest the kinds of factors the practitioners must consider and the specifics that must be investigated by R&D agencies interested in assisting him.

Before leaving this topic, we would like to offer one policy option we believe policymakers should consider and policy researchers should study. If termination decisions are tied to the end of the inflow of "soft" monies, might it be possible to develop new forms of fiscal incentives to encourage the maintenance of innovative programs? We believe our data support our hunch that this is indeed a matter of some significance.

The small study reported here has not pointed directly to specific, concrete strategies to help practitioners relate effectively to externally-developed innovations. We believe an extensive research program will be needed before that objective can be met. Our methodology was designed for exploratory purposes -- largely to help RBS think through its experiences as a linking change agent and to suggest, largely from that experience, what seems needed to develop this role more effectively. The empirical study was undertaken largely to further that conceptual enterprise: understood in that sense, the study was helpful to us. We hope, in some small way, the study and the technical appendices help others further work in this vitally important area of R&D activity.

APPENDIX A

Study Design

APPENDIX A

STUDY PROCEDURES

The design and procedures RBS used in this study of the innovation process were selected for their simplicity, low cost, and utility for the purposes RBS had in mind. As indicated in the body of this report, the research was intended to be exploratory rather than definitive. RBS staff members had gleaned numerous insights from their field experience in the role of linking change agents. The purpose of this effort was to develop these insights and hunches into models of the change process in education. Both normative and descriptive models were of interest. The empirical study was intended to assist us in the development of these models -- to check our insights and add specifics from the experiences of school personnel.

In planning this study, RBS could have chosen any of a number of design options. (1) A systematic, rigorous, hypothesis-testing approach might have been used, calling for a carefully selected sample of schools representative of some larger population(s) of schools of some type(s) relevant to the innovation process. For instance, schools reputed to be high and low in innovations might have been compared. Or a sample of schools that had implemented IPI might have been matched or compared with a control group of schools that had not implemented IPI. This design would likely have called for a larger sample than we could afford to study. But even more important, the state of existing knowledge on the innovation process did not seem sufficient to warrant an hypothesis-testing orientation. We felt more exploratory work was needed and that we particularly needed a form of investigation that would sharpen our intuitive and conceptual model-building.

(2) A second available option was intensive anthropological field study of one or two districts experiencing the innovation process. This option was also rejected. For such an effort to be productive, it would require a lengthier commitment to the investigation than we were willing to make given the specific needs that prompted the study. Even more to the point, a case study approach of this kind seems most useful for generating insights. Our past field experiences had already enabled us to generate a large number of insights. Our need at this point was for a research method that would enable us to synthesize our insights into conceptual models and use empirical data as a sounding board for examining our hunches and stimulating their elaboration.

(3) A third option was to use a survey approach to get a large enough number of respondents to provide a broad enough sounding board, but not to attempt the kind of rigorously controlled survey analysis described in option 1.

The RBS network of schools provided us with easy access to a large enough number of schools to meet our needs. Even more critical from our perspective, use of this network enabled us to query school personnel in the very districts whose experiences had been the basis of our hunches and model-building. Therefore, these were precisely the people we needed to question to check and expand our insights. If we had been interested in hypothesis-testing, we might have been concerned about the representativeness of these school districts -- for if they represented any population of schools it was only the population of schools linked to RBS, not a population of generalizable research concern. We therefore want to underscore the makeup of the school districts in our study and make certain that there is no misunderstanding about sampling or study design.

The design option, coupled with resource limitations, somewhat determined the data-gathering procedures that were feasible. Given the number of districts, the number of personnel in each district who would serve as respondents, and the time limitation for the study, the most intensive approach possible was a combination of written questionnaires, oral interviews, and classroom observation.

Reliability concerns were somewhat eliminated by the combination approach used. Questionnaire and interview responses were used together. The previously-completed questionnaires were in the hands of the interviewers when they spoke with the respondents. Many of the interview questons returned to items covered in the questionnaire -- for repetition and for elaboration. Inconsistencies in responses would therefore be apparent immediately.

We were more concerned about insuring the validity of our instruments and therefore conducted a systematic validation study of items included in the research. The content validity of the study instruments was determined by using a panel of nine judges. The panel included judges representative of the three groups who would be responding to these instruments. It included four teachers, two principals, and two central office administrators who were experienced with innovation. In addition, the panel included one expert on ACP who had not been involved in the development of the instruments.

The ACP expert provided a narrative evaluation of the instrument. Other members of the jury received copies of the instrument guide and a validity scale for indicating judgments of the validity of each item. For a copy of this validity scale, see Appendix C. Each judge independently evaluated each item and expressed his judgment of that item as "valid," "not valid," or of "doubtful validity." The "doubtful validity" response was to be used in cases where a judge was uncertain about the item's validity. Comments about each item could be entered in spaces provided in the validity scale.

Instructions to the judges indicated that the instrument was designed "to gather information about factors that relate to effective implementation of classroom innovations." They were told also that the instrument was to be administered to teachers, principals, and central office administrators who have been involved in the implementation of one or more innovations in their school districts.

Ten criteria were specified for use in judging the validity of each item:

1. The item relates to the research objective.
2. The respondent possesses the knowledge and information required by the item.
3. The item is unambiguous.
4. The item is _not_ a leading question.
5. The item is _not_ loaded with social or professional desirability.
6. The alternative responses show a reasonable range of variation.
7. The item is sufficiently inclusive.
8. The type of form (open-end, closed end) of the item is appropriate.
9. The item does not demand sensitive material that the respondent may resist revealing.
10. In relation to the other items, the position or order of the item is logical.

The original instrument contained a total of 63 items, including suggestions. The responses of the eight judges who completed the validity scale are summarized below:

- 14 items rated valid by all eight judges
- 22 additional items rated valid by seven judges
- 13 additional items rated valid by six judges

In all, then, 49 items were judged valid by six or more of the eight judges. If the acceptable cutoff point was four or more judges, then the entire instrument could be considered valid, since all 63 items were rated valid by at least four or more judges.

The "not valid" and "doubtful validity" responses can be summarized as follows: "Not valid" ratings were few in number. Only six items received any ratings of "not valid." In each case, only one judge out of the eight gave a "not valid" rating. No item received more than one "not valid" rating. However, 45 items received some ratings of "doubtful validity," i.e., the judge was uncertain whether the item was valid or not. These ratings were distributed as follows:

- 23 items rated "doubtful validity" by one judge
- 14 items rated "doubtful validity" by two judges
- 12 items rated "doubtful validity" by three judges

At this point, changes in the wording and arrangement of items were made in order to overcome the questions of validity raised by the panel. The revised instrument was then discussed with the interview team. After practicing with it, additional questions were raised about wording and also about the length of the interview. Several items were already in a format suitable for use in a questionnaire. Consequently, the interview inventory was split into two instruments: a questionnaire and an interview schedule. All items were cross-matched to the original instrument and no additions or substantial changes were made. These two instruments were used to collect the data in the field study.

It should be noted that the original single interview inventory was used in the validity study whereas the field research used two instruments derived from the original interview, i.e., the questionnaire and final interview schedule. No additional validity study was undertaken to establish the validity of these final instruments. However, RBS does not view this as a serious problem. The changes made between validation and final study were largely minor wording changes and reorganization of the instrument dividing it into two distinct instruments. Since the essence of content validity is the judgment that the items in the instrument will elicit responses relevant to the stated purposes of the research, and the substance of the items is the same in the original and final instruments, RBS has premised its procedures on the assumption that the validation still holds.

In summary, the RBS instruments were validated by a procedure using a panel of judges representative of the respondent groups to whom the instruments would be administered. The criterion used in accepting the validity of an item was that four or more of the eight judges had to have rated the item as valid. Using that criterion, all items and subitems were judged valid. However, to improve further the validity of the instruments, minor revisions in wording were made to take into account the questions raised by the judges. To solve anticipated problems related to the length of the instrument, it was divided into two separate instruments for the field research: a written questionnaire and an interview inventory. Since the interviews were held after the completed questionnaires were reviewed by RBS staff and interviewers, and required the respondents in a number of places to elaborate on the responses they had given in completing the questionnaires, this procedure provided some degree of a test of reliability as well.

The reader is referred to Appendices B and C for copies of the original interview inventory, the validity scale, and the final instruments.

In addition to the questionnaire and interview inventory, the CDI (Consultant Diagnostic Instrument) was provided to field observers to insure systematic assessment of the large number of implementation requirements RBS formulated for each

IPI program. In retrospect, we believe the instrument itself to be highly useful and effective for our purposes, but we suspect that the use of the scores in our analysis may have been inappropriate. Instead of collapsing the raw scores into high, medium, and low category ratings for each school, we might have learned more from our data if we had used the raw scores themselves and had greater variance to analyze.

The techniques used in the data analysis were chosen for ease of interpretation by an audience of readers expected to include large numbers uninitiated in advanced statistical approaches. Most of the analysis, then, involved frequency distributions, percentages, and means. Other techniques, however, might have yielded additional insights.

One of the most significant yields of this study, in our estimation, was its contribution to helping us formulate a research agenda for the continued study of the innovation process. In Appendix J, we consider this agenda and possible designs for its exploration.

APPENDIX B

Pilot Study Interview Inventory

APPENDIX B

ACP INNOVATION AWARENESS INVENTORY (AIAI)

This instrument is designed to enable ACP field staff to gather information about factors that relate to effective implementation of classroom innovations. The AIAI is based upon the propositions contained in the research design.

The AIAI is presented in the format that is used by ACP field staff. Since that format is for data-gathering purposes only, a map is needed to display the relation between items in the AIAI and the propositions themselves. This map is provided in a section that follows the AIAI.

Please note that a list of five innovations is used for many questions. The format for many questions, then, is repeated five times under actual field conditions. The format that we provide in this report shows the question format just once rather than be repetitious.

ACP INNOVATION AWARENESS INVENTORY

Developed By

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Edward Behrman, Field Consultant

ADMINISTERING FOR CHANGE PROGRAM

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RESEARCH FOR BETTER SCHOOLS, INC.

Robert G. Scanlon, Executive Director

November 30, 1973

OVERVIEW *(To be read to respondent by interviewer)*

> "At RBS we are studying what happens when classroom innovations are introduced in schools. We hope to learn from your experiences and thus make this process of change better understood by other educators.
>
> We have identified some propositions and want to see what your experience tells about them. Where we use a term in a special way we will offer you an explanation."

(The following is an introductory question. We are interested in a gross determination of how the district is structured.)

1. "Which organization structure best characterizes the leadership in the district?

   ☐ Single superintendency
   ☐ Dual superintendency (business manager reports to board)
   ☐ Decentralized school district
   ☐ Other

* * *

(Read the question to the respondent and follow-up with probing questions. Be sure to define underlined terms.)

2. "In your experience, who in the district has the best current information about various innovations available to schools? Rank your responses in the order of most knowledgeable."

NAME	POSITION*
1.	
2.	
3.	
4.	
5.	

*
Teacher
Principal
Instructional Specialist
Curriculum Specialist
Central Office Administration
Indicate the title of the position

(Read the probing question.)

"How do you obtain information regarding the types of innovations that are available?"

* * *

3. *(This item relates to funding arrangements and school board decisions where classroom innovations are being for adoption, implementation, and maintenance. You should try to locate board minutes for school year 1973-74 -- perhaps April or May 1973 -- and school year 1972-73 -- perhaps April or May 1972. List the proposed innovations and the appropriate information for each innovation. If you are unable to obtain board minutes, see if there is another way for you to obtain the information. The business manager may be the administrator who can be the most helpful to you.)*

"We are trying to learn about decisions to adopt, implement, and/or maintain classroom innovations in your district. It would be helpful if we can list some of the innovations considered by your district and then see if we can describe what happened."

(Complete Chart 3A on next page.)

(Complete the chart below)

List your source(s) of information ____________________

____

(1) Innovation (1972-73) or Earlier	(2) Kind of Decision Considered	(3) Proposed Source of Funding	(4) Source of Funding Terminated	(5) Number of Schools Involved	(6) School Board Decision

(1) Innovation (1972-73) or Earlier	(2) Kind of Decision Considered	(3) Proposed Source of Funding	(4) Source of Funding Terminated	(5) Number of Schools Involved	(6) School Board Decision

(1)
Insert the appropriate school year for each innovation if the year provided does not apply.

(2)
A =Adoption
M =Maintenance
O =Other
DK=Does Not Know
R =Reject

(3)
L =Local Revenue
S =State Funds (titles)
F =Federal Funds (titles)
O =Other(explain)grants, etc.
DK=Does Not Know

(4)
Yes or No

(5)
S=Single School
M=More than one School

(6)
A=Board Active Role
P=Board Passive Role
F=Funded
N=Not Funded
O=Other

4. *(Read the statement to the respondent for each innovation listed.)*

"Participation in adoption decisions and implementation planning is said to be important. If possible, please provide us with the information required by this item. Please select the five innovations which have been listed. On a scale of 0-4, rate the power of those who participated in the adoption decision and planning of the implementation."

Innovation	Adopt Decision	(1)*	(2)*	(3)*	Power Rating (0-4)
		a			
		b			
		c			
		d			
		e			
		f			
		g			
Consultant Service ☐ Yes ☐ No ☐ Does Not Know	Implement Planning	a			
		b			
		c			
		d			
		e			
		f			
		g			
	Adopt Decision	a			
		b			
		c			
		d			
		e			
		f			
		g			
Consultant Service ☐ Yes ☐ No ☐ Does Not Know	Implement Planning	a			
		b			
		c			
		d			
		e			
		f			
		g			

Legend:

a=Teacher(s)
b=Principal(s)
c=Central Office Administration
d=Teachers Organization
e=Community/Parents
f=Community/Interest Groups
g=Other (explain)

*(1)=Who Participated
(2)=How Many
(3)=Number of persons who actually implemented the innovative practice, but did not participate in the adoption and planning of the implementation.

(USE DK WHEN RESPONDENT DOES NOT KNOW)

5. *(Read the statement to the respondent for each innovation listed.)*

"Did you see ____________________ *(insert name of innovation)* in use prior to making the adoption decision?"

☐ Yes
☐ No
☐ Does Not Know

* * *

6. *(Read the statement to the respondent for each innovation listed.)*

"In this item we are attempting to ascertain the extent and nature of the evaluation prior to the adoption decision. I will ask you some questions about each listed innovation."

INNOVATION	WAS IT EVALUATION	BRIEF DESCRIPTION OF THE EVALUATION
	☐ Yes ☐ No ☐ Does Not Know	

* * *

7. *(Read the statement to the respondent for each innovation listed.)*

"In this item we are interested in ascertaining what person(s) or group of people can be identified as making the initial thrust in getting the innovation adopted by the school or school district. I will ask you some questions about each listed innovation."

INNOVATION	(1)*	(2)*	(3)*	THINGS WHICH THEY DID IN THE INITIAL THRUST

(1)* Formal Role

a=Teacher
b=Principal
c=Central Office Administrator
d=Teacher(s) Organization
e=Community/Interest Groups
f=Other (explain in "things..." location)

(2)* Adoption for School (Yes/No)

(3)* Adoption for School District (Yes/No)

* * *

8. *(Read the statement to the respondent for each innovation listed.)*

"In planning the adoption of the innovation, did an outside group, who was completely knowledgeable of the innovation, work closely with a staff from within the district? We will answer this for each listed innovation."

INNOVATION	RESPONSE
	☐ Yes ☐ No ☐ Does Not Know If yes, briefly describe what the outside group did. ____________________ ____________________

* * *

9. *(Read the statement to the respondent for each innovation listed.)*

"In planning the implementation of the innovation did an outside group, who was completely knowledgeable of the innovation, work closely with a staff from within the district? We will answer this for each listed innovation."

INNOVATION	RESPONSE
	☐ Yes ☐ No ☐ Does Not Know If yes, briefly describe what the outside group did. ____________ ____________

* * *

10. *(Read the statement to the respondent for each innovation listed.)*

"A number of factors may or may not have been related to the implementation of innovative practices with which you have generally been involved. Please indicate whether or not you can associate any of these factors with the classroom innovations currently in use in your school or school district. We will consider each listed innovation."

INNOVATION	FACTORS
	a. External Pressure ☐ Yes ☐ No ☐ Does Not Know If yes, explain briefly. ____________ ____________ ____________ b. Internal Tension ☐ Yes ☐ No ☐ Does Not Know If yes, explain briefly. ____________ ____________ ____________

INNOVATION	FACTORS
	c. Previous atmosphere of change ☐ Yes ☐ No ☐ Does Not Know If yes, explain briefly. ______________________ ________________________________ ________________________________ d. Outside expert with a positive image ☐ Yes ☐ No ☐ Does Not Know If yes, explain briefly. ______________________ ________________________________ ________________________________

* * *

11. *(Read the question to the respondent and follow-up with response categories.)*

"Innovations are developed by school districts. To give the innovation the greatest chances for success, the district uses staff in different ways. Which staff uses give the greatest chances for success for a home-developed innovation? Here we will rank the possibilities."

_____ a. classroom teacher working alone

_____ b. teacher-administrative committee

_____ c. research and development agency

_____ d. teacher committee intra-district

_____ e. teacher committee inter-district

_____ f. teacher committee within a single school

_____ g. other (specify)

_____ h. unable to respond

* * *

12. *(Read the question and record the responses.)*

"Describe the participatory roles that you believe are important in adoption decisions. Who (i.e., Central Office Administrator, Teacher, Parent, Principal, etc.) should play those roles indicated?"

PARTICIPATORY ROLE	BY WHOM

* * *

13. *(Read the question to the respondent. If at all possible, try to use the innovations previously listed. Here the key idea is adaptation.)*

"What innovations are currently in use and have been in use for a year or more? Please cite the innovation and indicate whether and in what ways they have been adapted to your school(s)."

INNOVATION	ADAPTED*	WAYS THEY HAVE BEEN ADAPTED

*Yes
No
Does Not Know

14a. *(Here the intention is to ascertain the level of involvement of respondents when an innovation is* ***adopted*** *for a single school. Read the question to the respondent and see if you can get him to select one of the categories. Also be sure to follow-up with probing questions to the respondent.)*

"What influence do you have, in general, on innovation adoption decisions for just one school?"

- ☐ Strong Influence
- ☐ Moderate Influence
- ☐ Some Influence
- ☐ Little or no Influence
- ☐ Don't Know

14b. *(Read the probing question.)*

"Who controls how much influence you can exert?"

PERSON OR GROUP	HOW DO THEY CONTROL YOUR INFLUENCE?

14c. *(Read the probing question to the respondent.)*

"What are the most important things that you generally do to influence the adoption decision?"

* * *

15a. *(Here the intention is to ascertain the level of involvement of respondents. When an innovation is adopted for more than one school, read the question to the respondent and have him select one of the categories. Also be sure to follow-up with the probing question.)*

"What influence do you have, in general, on innovation adoption decisions when more than one school is involved?"

- ☐ Strong Influence
- ☐ Moderate Influence
- ☐ Some Influence
- ☐ Little or No Influence
- ☐ Don't Know

15b. *(Read the probing question to the respondent.)*

"What are the most important things that you generally do to influence the adoption decision?"

* * *

16a. *(Here the intention is to ascertain the extent of influence of respondents when a decision about whether or not to continue an innovation is being made. Read the question to the respondent and have him select one of the categories. Also, follow-up with the probing question to the respondent.)*

"What influence do you have, in general, on ongoing implementation decisions?"

☐ Strong Influence

☐ Moderate Influence

☐ Some Influence

☐ Little or No Influence

☐ Don't Know

16b. *(Read the probing question to the respondent.)*

"What are the most important things you generally do to influence the decision?

____

____

____

____

____

* * *

17a. *(Here the intention is to ascertain the extent of respondent's influence when a decision is being made regarding whether or not to maintain an innovation. Read the question to the respondent and have him select one of the categories. Also follow-up with the probing question to the respondent. This question is for principals and teachers only.)*

"What influence do you have, in general, on maintenance decisions?"

☐ Strong Influence

☐ Moderate Influence

☐ Some Influence

☐ Little or no Influence

☐ Don't Know

17b. "What influence do you have on maintenance decisions for your school?"

☐ Strong Influence

☐ Moderate Influence

☐ Some Influence

☐ Little or No Influence

☐ Don't Know

17c. *(Read the probing question to the respondent.)*

"What are the most important things that you do to influence decisions?"

* * *

18. *(Here our intention is to find out what kind of reasons administrators and teachers give for adoption decisions. We are interested in those innovations that have been identified. Read the statement to the respondent and see if you can get him to provide a response for each of five innovations that you have found in use in the school district.)*

"Innovations are adopted for a variety of reasons. I will mention the innovations which you and your colleagues have cited earlier and will ask you what reasons you believe supported the adoption decision. If you are uncertain or feel that you are guessing, pass on the innovation."

INNOVATION	REASONS

* * *

19a. *(Read the statement and present the options to the respondent. Follow-up with the probing question.)*

"Typically, before deciding on adopting an innovation, your general preference for seeing the innovation in use is:"

☐ Strong

☐ Moderate

☐ Have No Preference

19b. *(Read the probing question.)*

"Please cite the basis for your response above."

* * *

20a. *(Read the question to the respondent. Follow-up with probing statements.)*

"Do you believe that you lack special skills and competencies needed in order to adopt an innovation?"

☐ Yes

☐ No

☐ Does Not Know

20b. *(Read the probing statement.)*

"Cite those skills and competencies which you believe are needed and for what role functions."

SKILLS, ETC.	ROLE FUNCTIONS

SKILLS, ETC.	ROLE FUNCTIONS

* * *

21a. *(Read the question to the respondent. Follow-up with the probing statement.)*

"Do you believe that you need special skills and competencies to implement an innovation?"

☐ Yes

☐ No

☐ Does Not Know

21b. *(Read the probing statement.)*

"Cite those skills and competencies which you believe are needed and for what role functions."

SKILLS, ETC.	ROLE FUNCTIONS

* * *

22a. *(Read the question to the respondent and follow-up with probing question.)*

"Do you desire training to acquire some of these skills and competencies?"

☐ Yes

☐ No

☐ Does Not Know

22b. *(Read the probing question to the respondent.)*

"What kinds of training and for what functions?"

TYPE OF TRAINING	ROLE FUNCTIONS

TYPE OF TRAINING	ROLE FUNCTIONS

* * *

23. *(Read the question to the respondent. Follow-up with rating instructions.)*

"Are continuous training sessions being conducted during the implementation of the innovative classroom practice? We will answer this for each listed innovation."

INNOVATION	RESPONSE
	a. ☐ Yes ☐ No ☐ Does Not Know
	b. If yes, on a scale of 0-5, rate the quality of the training. Rating_______

* * *

24a. *(Read the question to the respondent and follow-up with probing question.)*

"How well has your pre-service education provided you with the competence needed to get classroom innovation into your school?"

☐ Good

☐ Fair

☐ Poor

☐ Does Not Know

24b. *(Read the probing question.)*

"In what ways has it not prepared you?"

____

____

____

____

* * *

25a. *(Read the question to the respondent and follow-up with the probing question.)*

"How well has your pre-service education provided you with the competence needed to get classroom innovation into the schools of your district?"

☐ Good

☐ Fair

☐ Poor

☐ Does Not Know

25b. *(Read the probing question.)*

"In what ways has it not prepared you?"

____

____

____

____

____

____

* * *

26a. *(Read the question to the respondent and follow-up with the probing question.)*

"How well has your pre-service education provided you with the competence to implement classroom innovations?"

☐ Good

☐ Fair

☐ Poor

☐ Does Not Know

26b. *(Read the probing question.)*

"In what ways has it not prepared you?"

____

____

____

____

____

* * *

27a. *(Read the question to the respondent. Follow-up with the probing instructions.)*

"Does successful implementation of a classroom innovation need an RBS-type consultant during its first year?"

☐ Yes

☐ No

☐ Does Not Know

27b. *(Read questions 27b and 27c if the respondent has answered "no" in 27a.)*

"Do you generally need help of any kind during the first year of implementation?"

☐ Yes

☐ No

☐ Does Not Know

27c. *(Read the probing statement if the respondent has answered "yes" in 27b.)*

"Please indicate the type of help you would like to have during the first year of implementation."

TYPE OF ASSISTANCE

* * *

28a. *(We are trying here to ascertain the kinds of assistance that an RBS-type field consultant can provide. Read the question and complete the accompanying chart.)*

"What kinds of help do you need from an RBS-type field consultant during the first year of implementation? Please limit your responses to six areas of support."

TYPE OF ASSISTANCE NEEDED
1.
2.
3.
4.
5.
6.

28b. *(Read the statement and question to respondent. Follow-up with the next statement: "Please state the reasons for your answer.")*

"An innovation can be adopted and implemented by means of planning done by persons from outside the school district, persons within the school district or jointly (i.e., persons from outside working closely with persons from within the school district.) Which, in your experience, has generally been associated with successful implementation."

☐ Planned Externally

☐ Planned Internally

☐ Planned Jointly

☐ Does Not Know

☐ Other (explain)

____

____

____

28c. *(Read the probing statement to the respondent.)*

"Please state the reasons for your answer."

____

____

____

____

* * *

29a. *(Read the phrase to the respondent, cite the options and follow-up with the probing question.)*

"Typically, before moving to school-wide adoption, the principal's preferance to try it in a few classrooms was

☐ Strong

☐ Moderate

☐ Totally Absent

29b. *(Read the probing question.)*

"What is the basis for your response?"

____

____

____

____

____

* * *

30. *(Here we are trying to obtain evaluation information from the classroom, school, and school district. Read the statement to the respondent.)*

"If possible, please provide us with the information we are seeking. We would like to compile data on the evaluation activities in your class, school or school district as they relate to the classroom innovative practices cited earlier."

INNOVATION	TYPE OF EVALUATION	BRIEF DESCRIPTION OF TYPE OF EVALUATION	DEGREE OF THOROUGHNESS
	Process ☐ Yes ☐ No ☐ Does Not Know		☐ Extensive ☐ Good ☐ Moderate ☐ Fair ☐ Poor

* * *

31. *(Read the statement and complete the chart. Use those innovations which were cited earlier.)*

"Please cite those reasons which are most responsible for the failure to evaluate the innovations."

INNOVATION	REASON FOR FAILURE TO EVALUATE	IS EVALUATION PLANNED?
	Process	☐ Yes ☐ No ☐ Does Not Know
	Product	

* * *

32a. *(Read the question to the respondent and follow-up with the probing question.)*

"Does your school district provide incentives, other than maximizing student learning, for you to achieve successful implementation of innovative classroom products?"

☐ Yes ☐ No ☐ Does Not Know

32b. *(Read the probing question to the respondent if 32a was "yes".)*

"What incentives are provided?"

____

____

____

____

____

* * *

33. *(In the following items we are attempting to obtain teacher responses to a number of speculation. When necessary try to force the respondent to select one of the options.)*

a. "People who talk about innovtions don't really understand problems of working in a classroom."

☐ Agree Strongly
☐ Agree
☐ Disagree
☐ Disagree Strongly

b. "The problem of American education is that it has not been concerned with innovation until the past few years."

☐ Agree Strongly
☐ Agree
☐ Disagree
☐ Disagree Strongly

c. "It is futile to introduce innovations in schools because they are usually cancelled or lose their funds without a good explanation."

☐ Agree Strongly
☐ Agree
☐ Disagree
☐ Disagree Strongly

d. "I think that the coming years will bring major improvement in American education."

☐ Agree Strongly

☐ Agree

☐ Disagree

☐ Disagree Strongly

e. "Teachers are too overloaded to presently spend time on planning the implementation of innovations."

☐ Agree Strongly

☐ Agree

☐ Disagree

☐ Disagree Strongly

f. "Often times innovative classroom practices are simply the result of 'cut and paste' activities providing little substantive change."

☐ Agree Strongly

☐ Agree

☐ Disagree

☐ Disagree Strongly

g. "Schools where innovations are implemented are more desirable places to work."

☐ Agree Strongly

☐ Agree

☐ Disagree

☐ Disagree Strongly

h. "On the whole, administrators are reluctant to allow teachers to participate in making decisions about important innovations (i.e., those that require extensive role changes, human and material resources)."

☐ Agree Strongly

☐ Agree

☐ Disagree

☐ Disagree Strongly

i. "Teachers generally do not fully implement an innovative classroom practice because of the disorganized manner in which they are oriented to the innovation."

☐ Agree Strongly

☐ Agree

☐ Disagree

☐ Disagree Strongly

* * *

34a. *(This statement is for central office administrators only. Read the statement and follow-up with the probing question.)*

"School districts generally do not replace old practices with innovations even after a pilot run has been successful."

☐ Agree Strongly

☐ Agree

☐ Disagree

☐ Disagree Strongly

34b. *(Read the probing question to the respondent.)*

"If you agree, what do you believe to be the reasons responsible for the failure to replace these old practices? If you disagree, please indicate instances where you know these replacements have taken place."[*]

____

____

____

____

____

[*] Give name of innovation, what practices were replaced and length of time it has been utilized by the system.

* * *

35a. *(Read the question to the respondent and follow-up with the probing question.)*

"Utilizing the options listed below, what do you consider to be the most desirable rewards for carrying out an innovation successfully? Rank the options provided below."

_____ increase student achievement

_____ release time for planning

_____ additional funds for classroom materials and activities

_____ increase salaries

_____ personal satisfaction

35b. *(Read the probing statement to the respondent.)*

"Please cite, if possible, four (4) additional factors, in rank order, that you believe are of greater importance than those listed above."

1st ______________________________

2nd ______________________________

3rd ______________________________

4th ______________________________

* * *

36a. *(Read the statement to the respondent and follow-up.)*

"Utilizing the options listed below, rank the variables from greatest to the least, as to the extent to which you perceive them to be liabilities in implementing an innovative classroom product."

_____ extra work beyond classroom duties

_____ resistance from community

_____ creation of organization problems

_____ disappointment as a result of failure in the implementation

36b. *(Read the probing statement.)*

"Please, if possible, cite four (4) additional liabilities, in rank order, that you believe to be more significant than those given directly above."

1st ______________________________

2nd ______________________________

3rd ______________________________

4th ______________________________

* * *

37a. *(Read the question to the respondent and follow-up.)*

"Having been involved in the implementation of an innovative classroom practice, would you be interested in piloting another innovative classroom practice?"

☐ Yes

☐ No

☐ Undecided

37b. *(Read the probing question to the respondent.)*

"Have you successfully implemented an innovative classroom practice prior to the present innovations that are being implemented in your school?"

☐ Yes

☐ No

* * *

38a. *(Read the question to the respondent and follow-up.)*

"How would you rate the influence of the teacher organization(s) on decisions that relate to the adoption of innovative classroom products that are externally produced."

Single Building		More Than One Building
☐	Strong Influence	☐
☐	Moderate Influence	☐
☐	Some Influence	☐
☐	Little or No Influence	☐
☐	Does Not Know	☐

38b. *(Read the probing statement to the respondent.)*

"If you perceive the teacher's organization's influence as ranging from moderate to strong, list some of the things that it does in exerting its influence.

SINGLE BUILDING	MORE THAN ONE BUILDING

* * *

39a. *(Read the question to the respondent.)*

"How would you rate the influence of teacher organization(s) on decisions that relate to the ongoing implementation of innovative classroom products?"

Single Building		More Than One Building
☐	Strong Influence	☐
☐	Moderate Influence	☐
☐	Some Influence	☐
☐	Little or No Influence	☐
☐	Do Not Know	☐

39b. *(Read the probing question to the respondent.)*

"If you perceive the teachers organizations' influence as ranging from moderate to strong, list some of the things that it does in exerting its influence."

SINGLE BUILDING	MORE THAN ONE BUILDING

* * *

40a. *(Read the question to the respondent and follow-up.)*

"How would you rate the influence of teacher organization(s) on decisions that relate to maintaining an innovative classroom product?"

Single Building		More Than One Building
☐	Strong Influence	☐
☐	Moderate Influence	☐
☐	Some Influence	☐
☐	Little or No Influence	☐
☐	Do Not Know	☐

40b. *(Read the probing statement to the respondent.)*

"If you perceive the teacher organization(s) influence as ranging from moderate to strong, list some of the things that it does in exerting its influence."

SINGLE BUILDING	MORE THAN ONE BUILDING

* * *

MAP (CROSS-REFERENCE) SHOWING THE RELATION BETWEEN ITEMS IN THE (AIAI) AND THE PROPOSITION TO BE TESTED

ITEM NO.	A	B	C	PROPOSITION
1.	X			-
2.	X	X	X	10
3.	X	X		1,2
4.	X	X		8,9
5.	X	X		-
6.	X	X		11
7.	X	X		-
8.	X	X		15
9.	X	X		16
10.	X	X	X	12
11.	X	X	X	6
12.	X	X	X	-
13.	X	X	X	27
14a.	X	X	X	3
14b.	X	X	X	-
14c.	X	X	X	-
15a.	X	X		4
15b.	X	X		

1. A, B, and C denotes the three forms of the instrument which will be administered to central office administrators, principals and teachers respectively.
2. An (X) in the column indicates that item will be in that specific form, i.e., item # 2 will be in forms A, B, and C; but item # 1 will only be in form A.

ITEM NO.	A	B	C	PROPOSITION NO.
16a.	X	X	X	32
16b.	X	X	X	-
17a.	X	X		33
17b.		X	X	33
17c.	X	X	X	
18.	X	X	X	5
19a.	X	X	X	7
19b.	X	X	X	7
20a.	X	X	X	17, 18, 19
20b.	X	X	X	-
21a.	X	X	X	17, 18, 19
21b.	X	X	X	-
22a.	X	X	X	20, 21, 22
22b.	X	X	X	-
23.	X	X	X	23
24a.		X	X	26
24b.		X	X	-
25a.	X			26
25b.	X			-
26a.			X	26
26b.			X	-
27a.	X	X	X	29
27b.	X	X	X	
27c.	X	X	X	

ITEM NO.	A	B	C	PROPOSITION NO.
28a.	X	X	X	
28b.	X	X	X	14, 15
29a.	X	X		28
29b.	X	X		-
30.	X	X	X	30, 31
31.	X	X	X	-
32a.	X	X		24
33a.			X	-
33b.			X	-
33c.			X	-
33d.			X	-
33e.			X	-
33f.			X	-
33g.			X	-
33h.			X	-
33i.			X	-
34a.	X			35
34b.	X			-
35a.	X	X	X	-
35b.	X	X	X	-
36a.	X	X	X	-
36b.	X	X	X	-
37a.		X		25
37b.		X		25

ITEM NO.	A	B	C	PROPOSITION NO.
38a.	X	X	X	-
38b.	X	X	X	-
39a.	X	X	X	-
39b.	X	X	X	-
40a.	X	X	X	-
40b.	X	X	X	-

APPENDIX C

AIAI Validity Scale

AIAI VALIDITY SCALE

Name ______________________ Position ______________________

Please evaluate each item from your perspective as a teacher or administrator. If you believe the item reasonably fulfills the criteria for content validity, check the response, "Valid," on the scale. If the item fails to meet the criteria, check "Not Valid." If you are uncertain about the item's validity, check "Doubtful Validity." Please record any comment which would improve the item in the space provided.

Your thoughtful assistance in evaluating these items is greatly appreciated.

Item	Valid	Not Valid	Doubtful Validity	Comment, if any.
1.	___	___	___	
2.	___	___	___	
3.	___	___	___	
4.	___	___	___	
5.	___	___	___	
6.	___	___	___	
7.	___	___	___	
8.	___	___	___	
9.	___	___	___	
10.	___	___	___	
11.	___	___	___	
12.	___	___	___	
13.	___	___	___	
14a.	___	___	___	
b.	___	___	___	
c.	___	___	___	

AIAI VALIDITY SCALE (Continued)

Item	Valid	Not Valid	Doubtful Validity	Comment, if any.
15a.	___	___	___	
b.	___	___	___	
16a.	___	___	___	
b.	___	___	___	
17a.	___	___	___	
b.	___	___	___	
c.	___	___	___	
18.	___	___	___	
19a.	___	___	___	
b.	___	___	___	
20a.	___	___	___	
b.	___	___	___	
21a.	___	___	___	
b.	___	___	___	
22a.	___	___	___	
b.	___	___	___	
23.	___	___	___	
24a.	___	___	___	
b.	___	___	___	
25a.	___	___	___	
b.	___	___	___	
26a.	___	___	___	
b.	___	___	___	
27a.	___	___	___	
b.	___	___	___	
c.	___	___	___	

AIAI VALIDITY SCALE (Continued)

Item	Valid	Not Valid	Doubtful Validity	Comment, if any.
28a.	___	___	___	
b.	___	___	___	
c.	___	___	___	
29a.	___	___	___	
b.	___	___	___	
30.	___	___	___	
31.	___	___	___	
32a.	___	___	___	
b.	___	___	___	
33a.	___	___	___	
b.	___	___	___	
c.	___	___	___	
d.	___	___	___	
e.	___	___	___	
f.	___	___	___	
g.	___	___	___	
h.	___	___	___	
i.	___	___	___	
34a.	___	___	___	
b.	___	___	___	
35a.	___	___	___	
b.	___	___	___	
36a.	___	___	___	
b.	___	___	___	

AIAI VALIDITY SCALE (Continued)

Item	Valid	Not Valid	Doubtful Validity	Comment, if any.
37a.	___	___	___	
b.	___	___	___	
38a.	___	___	___	
b.	___	___	___	
39a.	___	___	___	
b.	___	___	___	
40a.	___	___	___	
b.	___	___	___	

APPENDIX D

Letter Soliciting Participation

RESEARCH FOR BETTER SCHOOLS, INCORPORATED SUITE 1700 / 1700 MARKET ST., PHILADELPHIA, PA 19103 / 215 561-4100

May 9, 1974

During recent years, a considerable amount of attention has been given to analyzing the processes which facilitate or inhibit knowledge utilization in schools. Research for Better Schools, Inc., (RBS) of Philadelphia, Pennsylvania, one of the regional laboratories established by ESEA, Title IV, 1965, has had extensive experience in this area as a result of its involvement with the RBS Network of School Districts. The National Institute of Education has commissioned RBS, through its Administering for Change Program, to conduct field research from which one can glean a more comprehensive analysis of the key variables which are operative in knowledge utilization in schools.

RBS has been involved with schools in your district as a result of their using RBS curricular products. We believe that staff members of those schools as well as specific members of your central staff can provide us with valuable information regarding their experiences in the adoption and utilization of these curricular materials. For this reason we are requesting that you permit designated members, as specified below, to participate in our study.

The demands that this research activity will make on your staff and other descriptive information follows.

1. School Level.

   We will be interested in primary and intermediate elementary grades using curriculum products developed and/or field tested by Research for Better Schools, Inc.

2. Schools Involved.

   ____

   ____

   ____

   ____

   ____

3. Personnel Involved and Their Activities

   a. Principal: The principal of each school will identify two classroom innovations, one developed by RBS and one other that is in use in the school. The principal must be knowledgeable of activities that led to the adoption and implementation of the identified innovations.

      The principal will also complete a questionnaire in two phases: Phase I would be a written questionnaire and Phase II would be an interview estimated to be one hour in length.

   b. Teachers: Three teachers from each school will complete a questionnaire in two phases: Phase I will be written and Phase II will be an interview to be conducted with all three teachers simultaneously.

c. Central Office Staff: One or two staff members who are knowledgeable of the innovations identified by the principals and funding which supports their utilization will complete a questionnaire in two phases: Phase I will be written and Phase II will be an interview. If one person in the district or area office is knowledgeable of these innovations and funding, it will suffice to interview that individual. The interview is estimated to be one hour.

4. Descriptive Title of Project.

Variables which influence the level of implementation of innovative curricular products.

5. Procedure.

Given a mutually agreed upon time schedule, we will come into the district and interview:

a. the principal during the school day. The written questionnaire will have been received by mail and completed prior to the interview.

b. the two (2) central office staff members during the scheduled working hours. The written questionnaire will have been received by mail and completed prior to the interview.

c. the three (3) teachers shortly after the school day is over. A written questionnaire will be completed during the day prior to the interview.

Our mode of data collection will comprise an orally administered questionnaire. Carefully trained Ph.D candidates in educational administration at Temple University and RBS field consultants will be conducting the interviews under the direction of Professors Ovsiew and Walters of the University's faculty.

6. Expected Starting and Finishing Data.

We would like to initiate our interviewing on May 20, 1974 and terminate our activity on or about June 20, 1974.

We are confident that your staff will find the questionnaire interesting and provocative. The nine network schools in which the original questionnaire was administered found it to be relevant. We believe that the findings can be informative to you, RBS and NIE and we intend to share them with you. It should be understood that all data for individuals and/or schools are not to be mentioned by name or in any manner which will permit their identification by the reader of any report written as a consequence of this study.

So that we may complete our interviewing expeditiously and effectively, it will be necessary for you to provide us with some information immediately. A form letter is enclosed for your response. Please forward this information to us immediately by calling collect:

(215) 561 - 4100

Mr. Graynle Edwards	ext. 267
Mr. James Phillips	ext. 256
Mr. Hurley Hanley	ext. 297

This information is needed by May 15, 1974.

Please join in this project.

Thank you for your consideration; it is greatly appreciated.

Sincerely,

GRAYNLE D. EDWARDS
Director of Research
and Product Evaluation

GDE:hjb

APPENDIX E

Explanatory Correspondence to District Coordinators

b. Ignore the IPI and non-RBS innovation selected by the other RBS-network demonstration school.

c. Give the questionnaires and the accompanying Appendix to the designated respondent(s). Principals should select only those teachers who were present during the first year of the IPI implementation by arranging those teachers in alphabetical order by last name and selecting in alphabetical order the first three teachers that are willing to participate in the study.

d. Request that they complete the questionnaires and present them individually to the interviewer at the time of the interview.

2. If you are the person who is coordinating the study at the central administration office level and have only one RBS-network demonstration school in your district---

a. Contact the principal of that school and obtain the first IPI innovation which was adopted by that school and the non-RBS innovation which that principal has selected. Refer to those two (2) innovations when you complete the questionnaire.

b. Follow the instructions listed under (1c) and (1d) above.

3. If you are the school principal of a school or have the administrative responsibility for operating that school---

a. Follow the instructions under (1c) and (1d).

The interviewing sessions will take place some time within the immediate future. A field consustant will be in contact with you to make the final arrangements.

Sincerely,

GRAYHLE D. EDWARDS
Director of Research
and Product Evaluation

GDE/ms
Enclosures

APPENDIX F

Glossary of Terms

APPENDIX - DEFINITIONS

1.	ADAPT:	Alter the innovation from the model prescribed by the developer.
2.	ADOPT (ADOPTION):	Decide to use an innovation. The adoption phase begins at initial awareness of the innovation and ends just prior to installation of the innovation in the classroom.
3.	ADMINISTRATORS:	Building administrators and central office administrators.
4.	BUILDING ADMINISTRATORS:	Persons designated as line administrators responsible for a given attendance unit. Most generally, principals and assistant principals. A teacher given, for instance, "roster time" for quasi-administrative functions is considered to be a teacher.
5.	CENTRAL OFFICE ADMINISTRATORS:	Persons responsible for management of an aspect of district operation that involves more than one building.
6.	CURRICULUM DEVELOPERS:	Persons working for the Lab to produce classroom innovations.
7.	EVALUATION:[1]	Determining the congruence between performance and objectives, especially behavioral objectives; operationally, focusing on the behavioral development of children, teacher and administrators and the procedures which influences that development (15).
8.	(EVALUATION, PROCESS):	Assessing the educational procedures which directly or indirectly influence the behavioral development of children.

---

[1] Definition originated by Ralph W. Tyler in "Basic Principles of Curriculum and Instruction, Syllabus for Education, p. 69," cited by Stufflebeam, Gephart, et al. in Educational Evaluation and Decision Making, p. 11.

9.	(EVALUATION, PRODUCT):	Assessing the behavioral development of children.
10.	EXTERNAL GROUP:	A group or institution not legally charged with responsibility for policy-making, management, or participation in the operation of the school district, i.e., local level. External groups include: NIE, State Department of Education, the Lab, and universities and colleges.
11.	FIELD CONSULTANT:	A representative of the Lab who visits the school district to support activities to adopt, implement and maintain a classroom in the schools.
12.	FUNDING:	The provision of revenue to underwrite the costs of innovation.
13.	INTERNAL GROUP:	Persons who share a common position of common affiliation in the school district. Examples of internal groups are: principals, central office administrators, teachers, school board members, and curriculum coordinators. Other groups include parents and community.
14.	IMPLEMENTATION:	Operate an innovation during the first year according to a model prescribed by the developer, school district or school.
15.	(ON-GOING IMPLEMENTATION):	Operating an innovation after one year.
16.	INFLUENCE:	Have impact on the direction of decisions.
17.	INNOVATION:	A specific means to accomplish specific instructional goals. It is new to the site (district, building or classroom), imported from outside of the school district and has direct or indirect impact on children.

18.	INSTALL (INSTALLATION):	Act upon a decision to adopt an innovation by refining physical plant; initial training of administrators and teachers; scheduling; selecting student materials; including first year.
19.	LEADERSHIP:	Assuming the risks involved in adopting, implementing and maintaining an innovation.
20.	MAINTAIN (MAINTENANCE):	Continue operation of the innovation after the initial funding sources have been greatly reduced or discontinued.
21.	PILOT:	Activity by the school district to try out an innovation.
22.	PRODUCT:	Another name for innovation.
23.	PROGRAM:	The sum of instructional activities. Example: IPI Reading is a product but may only be part of the school district reading program.
24.	RBS:	Research for Better Schools, Inc.; one of several regional laboratories.
25.	SCHOOL BOARD:	Persons, either elected or appointed, who have legal responsibility for the governance of the school district.
26.	SUCCESSFUL IMPLEMENTATION:	A state in which the district achieves the strategy sought according to the model prescribed by the school district, school or product developer.
27.	SUPPORT:	Activities to help those responsible for implementation to achieve success.
28.	TRAIN (TRAINING)	Skills, competencies and critical understandings needed to perform change-related roles prior to implementing the innovation.
29.	TRAIN (CONTINUOUS):	Training which takes place periodically during the entire first year in which the innovation is being implemented.

APPENDIX G

ACP Innovation Process Questionnaire

ACP INNOVATION PROCESS QUESTIONNAIRE

Developed By

Graynle Edwards, Research Director

In Association With

Stephen L. Sokolow

Robert T. Stowell

ADMINISTERING FOR CHANGE PROGRAM

Sanford Temkin, Director

Mary V. Brown, Deputy Director

RESEARCH FOR BETTER SCHOOLS, INC.

Robert G. Scanlon, Executive Director

May, 1974

INTRODUCTION

We are studying the educational change process in the expectation that understanding it will better enable all of us in education to cope with its difficulties. This questionnaire is the first of a two-part information-gathering effort. The second will be an interview.

We will be asking about innovations which we define for our research purpose as classroom curricular products that have been conceived and developed outside of the school district in which the adopting school is located. IPI Math, IPI Spelling, or IPI Reading are the innovations to be considered.

Please respond to the questions which follow for either IPI Math, IPI Spelling, or IPI Reading. Use the first IPI innovation adopted by the district. Also, respond for one other non-RBS innovation which the principal designates. If there is more than one RBS network school in the school district, the central office administrators should respond to the two innovations identified by the principal of the first school in which the initial IPI innovation was adopted. It is essential that each principal, using an alphabetical list, select the first three (3) teachers on that list who participated in the first year of implementation of the innovations to serve as respondents in the study.

We have tried to simplify and clarify these questions the best we can, but as you will see they do still require more than a little of your time and thought. We are grateful for your cooperation and trust that professional satisfactions will be rewarding. Indeed, some questions ask for your best professional judgment in a general way, and we value these as much as the factual data we ask for.

(It would help both you and us enormously if this questionnaire is completed before the interview!) Definitions are provided in the Appendix to assist you in completing the questionnaire.

A. GENERAL INFORMATION

1. Which of the following best characterizes your district's administrative organizational structure?

   ☐ Single superintendency

   ☐ Dual superintendency (business manager reports to board)

   ☐ Decentralized school district

   ☐ Other (Specify)______________________________

2. Who in the school district has the best information about externally developed products (innovations) currently available to schools. (List up to five persons in rank order.)

NAME	TITLE
(1)	
(2)	
(3)	
(4)	
(5)	

3. Please check the response for each item which you consider most appropriate.

   "People who develop innovations don't really understand problems of working in a classroom."

   ☐ Agree Strongly

   ☐ Agree

   ☐ Disagree

   ☐ Disagree Strongly

4. "A significant problem of American education is that it has not been concerned with innovation until the past few years."

☐ Agree Strongly

☐ Agree

☐ Disagree

☐ Disagree Strongly

5. "It is futile to introduce innovations in schools because they are usually cancelled or lose their funds without a good explanation."

☐ Agree Strongly

☐ Agree

☐ Disagree

☐ Disagree Strongly

6. "I think that the coming years will bring major improvement in American education."

☐ Agree Strongly

☐ Agree

☐ Disagree

☐ Disagree Strongly

7. "Often innovative classroom practices are simply the result of 'cut and paste' activities providing little substantive change."

☐ Agree Strongly

☐ Agree

☐ Disagree

☐ Disagree Strongly

8. "Generally, administrators are reluctant to allow teachers to participate in making decisions about important innovations (i.e., those that require extensive role changes, human and material resources)."

☐ Agree Strongly

☐ Agree

☐ Disagree

☐ Disagree Strongly

9. Please number the choices below in rank order.

Innovations may be developed internally by individual school districts. Such innovations have the greatest chance for success if they are developed by --

_____ a. a classroom teacher working alone

_____ b. a teacher-administrative committee

_____ c. in cooperation with a research and development agency

_____ d. a teacher committee (intra-district)

_____ e. a teacher committee (inter-district)

_____ f. a teacher committee (within a single school)

_____ g. a combination of the above (specify_________________)

_____ h. Other (specify_________________________________)

B. ADOPTION OF INNOVATIONS

10. The following items deal with involvement in the process leading up to the decision to adopt the two innovations being studied.

Directions

(1) In column (1) specify the number of participants for each innovation (use 0 to indicate none).

(2) In column (2) rate the influence of individual(s) or group(s) on the decisions to adopt each innovation using a scale of 0-4 (4 represents the highest degree of influence).

INNOVATION #1 (Specify) ____________	(1)	(2)
Teacher(s)		
Principal(s)		
Central Office Administration		
Teachers' Organization		
Community/Parents		
Community/Interest Groups		
Other (explain)		
INNOVATION #2 (Specify) ____________		
Teacher(s)		
Principals(s)		
Central Office Administration		
Teachers' Organization		
Community/Parents		
Community/Interest Groups		
Other (explain)		

11. How would you rate the influence of the teacher organization, e.g., local bargaining agent, on decisions that relate to the adoption of innovative classroom products that are externally produced?

For A Single Building		For More Than One Building
☐	Strong Influence	☐
☐	Moderate Influence	☐
☐	Some Influence	☐
☐	Little or No Influence	☐
☐	Don't Know	☐

12. What influence do you have, in general, on decisions to adopt curricular innovations for just one school? (The you pertains to professional status, e.g., teacher, principal, central office administrator, etc.)

☐ Strong Influence
☐ Moderate Influence
☐ Some Influence
☐ Little or No Influence
☐ Don't Know

13. What influence do you have, in general, on decisions to adopt curricular innovations when more than one school is involved? (You pertains to professional status, e.g., teacher, principal or central office administrator.)

☐ Strong Influence
☐ Moderate Influence
☐ Some Influence
☐ Little or No Influence
☐ Don't Know

14. Prior to the decision to adopt the innovation, did you observe it in practice?

	YES	NO
Innovation #1 ______________________________	☐	☐
Innovation #2 ______________________________	☐	☐

15. An innovation can be adopted through planning done by persons from outside the school district, persons within the school district or jointly (i.e., persons from outside working closely with persons from within the school district.) Which, in your experience, generally has been the most successful?

☐ Planned Externally

☐ Planned Internally

☐ Planned Jointly

☐ Don't Know

☐ Other (explain)

____

____

____

16. How well did your college preparation provide you personally with the competencies needed to get classroom innovations into your school? (Teachers and principals only need respond.)

☐ Good

☐ Fair

☐ Poor

☐ Don't Know

17. How well did your college preparation provide you personally with the competencies needed to get classroom innovations into the schools of your district?

☐ Good

☐ Fair

☐ Poor

☐ Don't Know

18. Before moving to school-wide adoption of either one or both innovations, the principal's preference to try it in a few classrooms was

☐ Strong

☐ Moderate

☐ Totally Absent

C. IMPLEMENTATION OF INNOVATIONS

19. The following attempts to distinguish between adoption decisions and implementation. Implementation has both a *planning* phase and a *use* phase. That is, after a decision to adopt is made there is, typically, some planning for *how* the new practice will be implemented, which is then followed by its installation and use. Here we are concerned with the two phases of implementation.

(1) In column (1) give the number of participants in the *planning* phase. (Use *0* to indicate none.)

(2) In column (2) rate the influence, as you perceive it, of these participants. (0-4 scale, 4 being the greatest influence.)

(3) In column (3) give the number who actually did the work required to install and use the innovations, but were *not* involved in the planning phase.

(4) In column (4) give your best estimate of the number of those who installed and used the innovation but were not involved in the adoption decision.

INNOVATION #1 (Specify) ______________________	(1)	(2)	(3)	(4)
Teacher(s)				
Principal(s)				
Central Office Administration				
Teachers' Organization				
Community/Parents				
Community/Interest Groups				
Other (explain)				
INNOVATION #2 (Specify) ______________________				
Teacher(s)				
Principal(s)				
Central Office Administration				
Teachers' Organization				
Community/Parents				
Community/Interest Groups				
Other (explain)				

20. Were consultant services used during the planning phase of the implementation of Innovation #1?

☐ Yes

☐ No

☐ Don't Know

21. Were consultant services used during the planning phase of the implementation of Innovation #2.

☐ Yes

☐ No

☐ Don't Know

22. An innovation can be implemented by means of planning done by persons from outside the school district, persons within the school district or jointly (i.e., persons from outside working closely with persons from within the school district). Which, in your experience, generally has been the most successful?

☐ Planned Externally

☐ Planned Internally

☐ Planned Jointly

☐ Don't Know

☐ Other (explain)

____

____

____

23. Does successful implementation of a classroom innovation need an RBS-type consultant during its first year?

☐ Yes

☐ No

☐ Don't Know

24. If you responded yes to question 23, omit this question. If your answer was no, then --

Is help of any kind needed during the first year of implementation?

☐ Yes

☐ No

☐ Don't Know

25. Having been involved in the implementation of an innovative classroom practice, would you be interested in piloting another innovative classroom practice?

☐ Yes

☐ No

☐ Undecided

26. Have you successfully implemented an innovative classroom practice prior to the present innovations that are being implemented in your school? (An implemented innovative classroom practice may be considered to be successful when both process and product outcomes, as specified prior to implementation, have been achieved.)

☐ Yes

☐ No

27. Does your school district provide special incentives, other than improving student learning, for you to achieve successful implementation of innovative classroom products?

☐ Yes

☐ No

☐ Don't Know

28. Teachers generally do not fully implement an innovative classroom practice because of the disorganized manner in which they are oriented to the innovation.

- ☐ Agree Strongly
- ☐ Agree
- ☐ Disagree
- ☐ Disagree Strongly

29. School districts often do not replace old practices with innovations even after a pilot run has been successful.

- ☐ Agree Strongly
- ☐ Agree
- ☐ Disagree
- ☐ Disagree Strongly

30. Schools where innovations are implemented are more desirable places to work.

- ☐ Agree Strongly
- ☐ Agree
- ☐ Disagree
- ☐ Disagree Strongly

31. Teachers are too overloaded to spend much time on planning the implementation of innovations.

- ☐ Agree Strongly
- ☐ Agree
- ☐ Disagree
- ☐ Disagree Strongly

32. How well did your college preparation provide you with the competencies to implement classroom innovations? (Teachers and principals only need respond.)

☐ Very Well

☐ Well Enough

☐ Fairly Well

☐ Poorly

33. Place the following items in rank order (1 to 4), according to the extent to which you perceive them to be liabilities in implementing an innovative classroom product. (1 = greatest liability.)

_____ extra work beyond classroom duties

_____ resistance from community

_____ creation of organizational problems

_____ general disappointment if there is a failure in the implementation

34. Place the following items in rank order (1 to 5), according to the extent to which you consider them to be desirable rewards for carrying out an innovation successfully. (1 = most desirable reward.)

_____ increased student achievement

_____ released time for planning

_____ additional funds for classroom materials and activities

_____ increased salaries

_____ professional or personal satisfaction

35. Were training sessions conducted during the implementation phase of each innovation?

INNOVATION	RESPONSE
#1 Specify______________	a. ☐ Yes ☐ No ☐ Don't Know
	b. If yes, on a scale of 0-4, rate the quality of the training. (4 = highest quality.) Rating ________
#2 Specify______________	a. ☐ Yes ☐ No ☐ Don't Know
	b. If yes, on a scale of 0-4, rate the quality of the training. Rating ________

36. What influence do you have, at the district level, on decisions regarding the continued financial support of innovations? (The you pertains to professional status, e.g., teachers, principals.)

☐ Strong Influence

☐ Moderate Influence

☐ Some Influence

☐ Little or no Influence

☐ Don't Know

37. What influence do you have on decisions regarding the continued financial support of innovations for your school? (The you pertains to professional status, e.g., teachers, principals.)

☐ Strong Influence
☐ Moderate Influence
☐ Some Influence
☐ Little or No Influence
☐ Don't Know

38. How would you rate the influence of the local teachers' organization on decisions that relate to the continued financial support of an innovative classroom product? (The you pertains to professional status, e.g., teachers, principals.)

For A Single Building		For More Than One Building
☐	Strong Influence	☐
☐	Moderate Influence	☐
☐	Some Influence	☐
☐	Little or No Influence	☐
☐	Don't Know	☐

39. What influence do you have on decisions concerning the continuation of innovative programs, exclusive of financial considerations? (The you pertains to professional status, e.g., teachers, principals, central office administrators.)

☐ Strong Influence
☐ Moderate Influence
☐ Some Influence
☐ Little or No Influence
☐ Don't Know

40. How would you rate the influence of the local teachers' organization on decisions that relate to the continuation of innovative classroom products, exclusive of financial considerations? (The you pertains to professional status, e.g., teachers, principals, central office administrators.)

For A Single Building		For More Than One Building
☐	Strong Influence	☐
☐	Moderate Influence	☐
☐	Some Influence	☐
☐	Little or No Influence	☐
☐	Don't Know	☐

41. Name of Respondent ____________________

Position ____________________

Name of School ____________________

Name of School District ____________________

City, Town or County, State ____________________

(Final publication will not give the names or respondents.)

APPENDIX H

ACP Innovation Process Interview Inventory

ACP INNOVATION PROCESS INTERVIEW INVENTORY

Developed By
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May, 1974

A. GENERAL INFORMATION

1. How do you obtain information regarding externally developed curricular innovations which are currently available to schools?

____

____

____

____

____

____

B. ADOPTION OF INNOVATIONS

2. What were the two innovations that you designated on your questionnaire?

IPI	(1)
OTHER	(2)

3. Who made the initial thrust in getting each of these innovations adopted by your school or school district?

	Insert appropriate symbol(s)
INNOVATION (1) [IPI]	
INNOVATION (2) [OTHER]	

a = Teacher(s)
b = Principal(s)
c = Central Office Administrator(s)
d - Teachers' Organization
e = Community/Interest Groups
f = Other (specify)______________________________

4. What things did these individuals do in the initial thrust?

INNOVATION (1) [IPI]	INNOVATION (2) [OTHER]

5. Describe any informal or formal evaluation procedures used prior to the decision to adopt each innovation.

EVALUATION METHOD	
(1) I P I	
(2) O T H E R	

6. Prior to the adoption of each innovation, did an outside person or group specially knowledgeable about the innovation, work closely with the district's personnel?

(1) IPI	☐ Yes ☐ No ☐ Doesn't Know If yes, briefly describe what the outside group did.
(2) OTHER	

7. What reasons do you believe supported the decisions to adopt each innovation?

	REASONS
(1) IPI	
(2) OTHER	

8. What responsibilities should you have in the process of adopting innovations? (The you pertains to the professional status of the person or group being interviewed.)

Teachers:

Principals:

Central Office Administrators:

9. What special background or training do you feel is necessary to meet these responsibilities adequately?

Teachers:

Principals:

Central Office Administrators:

10. (a) Turn to question 11 of the questionnaire, please.

(b) Which responses did you check? Specify__________ __________

(c) If for either a single building or more than one building or both you responded "moderate" or "strong", describe how the teachers' organization exerts its influences. (For all other responses, omit this question).

Single Building	More Than One Building

11. (a) Turn to question 18 of the questionnaire, please.

(b) Which response did you check? Specify____________________

(c) What is the basis for your response?

____

____

____

____

C. IMPLEMENTATION OF INNOVATIONS

12. In planning the implementation of each innovation did an outside person or group, specially knowledgeable about the innovation, work closely with the district's personnel?

(1) IPI	☐ Yes ☐ No ☐ Don't Know If you, briefly describe what the outside group did.
(2) OTHER	☐ Yes ☐ No ☐ Don't Know If you, briefly describe what the outside group did.

13. What kinds of help do you believe an RBS-type field consultant might provide during the first year of implementation?

TYPE OF ASSISTANCE

14. What responsibilities should you have in the process of implementing innovations? (The you pertains to the professional status of the person or group being interviewed.)

Teachers:
Principals:
Central Office Administrators:

15. What special background or training do you feel is necessary to meet these responsibilities adequately?

Teachers:
Principals:
Central Office Administrators:

16. What ways have you found to be effective in influencing decisions concerning the continuation of innovative programs exclusive of financial considerations?

17. What have you found to be effective ways to influence decisions regarding the continued financial support of innovations for your school or district?

18. (a) Turn to question 27 of the questionnaire, please.

(b) Which response did you check? Specify ____________________

(If the response was No or Don't Know, omit the following interview question.)

(c) If the response was Yes,

What special incentives are provided?

19. (a) Turn to question 34 of the questionnaire, please.

(b) Are there any other reward factors which you believe are, or may be in some situations, even more important than any of those listed in the questionnaire? If so, list them below.

(a) ______________________________

(b) ______________________________

(c) ______________________________

(d) ______________________________

20. Where in relation to the rank ordering on question 34 of the questionnaire would you place these additional factors which you have just identified?

(Place (a), (b), (c), (d) on the following continuum. More than one letter may be inserted in each space.)

______1 ______2 ______3 ______4 ______5
______1 ______2 ______3 ______4 ______5
______1 ______2 ______3 ______4 ______5

21. During the implementation of each innovation, was internal tension created within the district?

(1) I P I	☐ Yes ☐ No ☐ Don't Know If yes, explain briefly.
(2) O T H E R	☐ Yes ☐ No ☐ Don't Know If yes, explain briefly.

22. During the implementation of each innovation was external pressure exerted on the district? (External refers to individuals or groups other than district personnel.)

(1) IPI	☐ Yes ☐ No ☐ Don't Know If yes, explain briefly.
(2) OTHER	☐ Yes ☐ No ☐ Don't Know If yes, explain briefly.

23. Prior to the implementation of each innovation had there been a positive atmosphere for change in the district?

(1) IPI	☐ Yes ☐ No ☐ Don't Know If yes, explain briefly.
(2) OTHER	☐ Yes ☐ No ☐ Don't Know If yes, explain briefly.

24. Was an outside expert associated with the implementation of each innovation?

(1) IPI	☐ Yes ☐ No ☐ Don't Know If yes, explain briefly.
(2) OTHER	☐ Yes ☐ No ☐ Don't Know If yes, explain briefly.

25. Was each innovation implemented exactly as recommended by the developer?

☐ Yes ☐ No ☐ Don't Know

If No, what changes were introduced to adapt the innovation to your needs?

INNOVATION	WAYS THEY HAVE BEEN ADAPTED
IPI	
OTHER	

26. Has there been an evaluation in your class, school, or school district of each innovation? If the response is No, proceed immediately to question 27. If the response is Yes, then omit question 27.

INNOVATION	TYPE OF EVALUATION	BRIEF DESCRIPTION OF TYPE OF EVALUATION	DEGREE OF THOROUGHNESS
(1) I P I	Process ☐ Yes ☐ No ☐ Don't Know		☐ Extensive ☐ Good ☐ Moderate ☐ Fair ☐ Poor
(1) I P I	Product ☐ Yes ☐ No ☐ Don't Know		☐ Extensive ☐ Good ☐ Moderate ☐ Fair ☐ Poor
(2) O T H E R	Process ☐ Yes ☐ No ☐ Don't Know		☐ Extensive ☐ Good ☐ Moderate ☐ Fair ☐ Poor
(2) O T H E R	Product ☐ Yes ☐ No ☐ Don't Know		☐ Extensive ☐ Good ☐ Moderate ☐ Fair ☐ Poor

27. Would you please comment on why an evaluation has not been performed?

INNOVATION	REASON FOR NO EVALUATION	IS EVALUATION PLANNED?
(1) IPI	Process	☐ Yes ☐ No ☐ Don't Know
(1) IPI	Product	☐ Yes ☐ No ☐ Don't Know
(2) OTHER	Process	☐ Yes ☐ No ☐ Don't Know
(2) OTHER	Product	☐ Yes ☐ No ☐ Don't Know

28. If your school or school district has more than one IPI program and these programs were not adopted at the same time, what major differences were there in the adoption process for the second IPI program?

____

____

____

____

____

29. Name of School District ____________________

City, State ____________________

	Names of Respondent(s)	Position	Name of School
(1)			
(2)			
(3)			

30. Interviewer's general reactions, comments, perceptions, and observations regarding the respondent's general attitude, aside comments, and views expressed during the interview.

____

____

____

____

____

____

APPENDIX I

Consultant Diagnostic Instrument

CONSULTANT DIAGNOSTIC INSTRUMENT

INSTRUCTIONS

The Consultant Diagnostic Instrument (CDI) is a checklist for the consultant's use twice a year to assess the implementation and to document progress of the appropriate IPI model in the Network Schools. The Companion Piece contains a definition of each item.

Description of CDI

The first part (I. School Organization) includes items concerning materials, space, administrative planning, demographics and school philosophy and/or goals.

The second part (II. Instructional Elements) pertains to the instructional aspects of program implementation. The instrument is designed to provide for evaluation of the implementation and the progress of the IPI program(s) in the Network Schools.

This instrument enables a consultant to assess the school's implementation in relation to the specified items which constitute the program's implementation model as defined by RBS. Specifically, the consultant will be able to assess the school's implementation at three levels.

Level One -

> The consultant will be able to identify the items which the school model differs from the IPI model.

Level Two -

The consultant will be able to identify the items within a given area in which the school model differs from the IPI model.

Level Three -

The consultant will be able to identify classrooms which:

a). adhere very closely to the IPI Model.

b). differ to a great extent from the IPI Model.

In addition, this instrument will facilitate the consultant's analysis of the collected data and aid in the formulation of strategies to be presented to the school staff regarding the implications and/or consequences of the consultant's findings.

The third part (III. School Implementation Summary) serves the following functions:

(1) it provides for area totals in each curricular subject;

(2) it provides for an explanation of the school's goals;

(3) it provides for documentation of other distinctive descriptors of a school;

(4) it provides for a written analysis of the problems the consultant has identified in the school; and

(5) it provides for written documentation of School District contacts.

DIRECTIONS FOR USE:

School Organization

The school organization is divided into four sections.

Sections A, B, and C require a "+" in the appropriate box to indicate a positive response. A "O" in the appropriate box indicates a negative response. There is a place for two separate readings of this instrument for each individualized program. The following is an example of a positive response for item A-4 and a negative response for item A-5 on the first reading taken for the Spelling program.

Example:

	IPI MATH	IPI MATH	IPI READING	IPI READING	IPI SPELLING	IPI SPELLING	INDIV. SCIENCE	INDIV. SCIENCE
4. Permanent student file maintained					+			
5. Aide work area is functional					0			

Section D requires that the requested data be furnished on the indicated black lines. Section D is to be completed only one time during the school year. There is no space provided for more than one reading for section D.

There is an explanation for each item in Sections A, B, and C in the companion piece for school organization.

DIRECTIONS FOR USE:

Instructional Elements

A separate Instructional Elements section will be used for each program.

A random sampling technique will be used for selection of the classrooms to be observed.

The columns on the right side of the page under the heading Classrooms are used to record the consultant's evaluation of each item in each classroom. The following are possible responses:

- + The condition or event described in the statement is observed and/or assessed to be taking place in the classroom.
- O The event or condition described in the statement is not occurring in the classroom visited.
- X This denotes a item that could not be observed.

The column, Item Total, is used to record the total number of classrooms observed which had a positive response to each item.

The column, Area Total, is used to record the total number of classrooms which had positive responses for each item in a particular area, e.g. Placement Tests.

The item, Total number of positive responses, located at the bottom of each page is used to record the total number of positive responses for each classroom observed.

The horizontal column, Classrooms, should contain the classroom number and grade level e.g. 101.1 means room 101 and is a first grade class.

DIRECTIONS FOR USE:

School Summary

The School Summary section is divided into five parts. In the first part, Instructional Elements Summary, the following information should be recorded:

1. Area totals for each curriculum product.
2. Total number of classrooms observed.

In the second part, a full explanation of the goals of the school should be placed.

In the third part, Other Descriptors of School, information which will give a more specific profile of the school should be placed, e.g., special programs in the school, strengths, mode of personnel utilization, school operational structure.

In the fourth part, Program Problems, the following information should be recorded.

1. The name of the Program.
2. Under the heading, Problem, the problem upon which action has been taken or will be taken in the near future should be listed.
3. Under Recommendations Made, the advice given or suggestions made by the consultant should be listed.
4. The Follow-Up section is to be completed after a subsequent visit to the school. Any further actions taken, recommendations made or the state of problem should be recorded here.

The fifth part, School District Contact Record, should be used for documentation of contacts made within a district.

SCHOOL ORGANIZATION

	IPI MATH	IPI MATH	IPI READING	IPI READING	IPI SPELLING	IPI SPELLING	INDIV. SCIENCE	INDIV. SCIENCE
Dates	☐	☐	☐	☐	☐	☐	☐	☐
A. Materials and Space Allocation								
1. Materials are systematically organized and located for easy accessibility to students.	☐	☐	☐	☐	☐	☐	☐	☐
2. Supplementary materials are available to student and staff.	☐	☐	☐	☐	☐	☐	☐	☐
3. Appropriate keys available to student and staff.	☐	☐	☐	☐	☐	☐	☐	☐
4. Permanent student file maintained.	☐	☐	☐	☐	☐	☐	☐	
5. Aide work area is functional.	☐	☐	☐	☐	☐	☐	☐	☐
6. Student folders are orderly with only current materials.	☐	☐	☐	☐	☐	☐	☐	☐
7. ITL and IL kits contain materials listed on inside cover.							☐	☐
8. SA cards are organized sequentially in blue binders.							☐	☐
B. Audio Resources								
1. Students have been trained in the operation of equipment.	☐	☐	☐	☐	☐	☐	☐	☐
2. The scheduling complements the classroom schedule.	☐	☐	☐	☐	☐	☐	☐	☐
3. Students are scheduled for optimal use of audio schedule.	☐	☐	☐	☐	☐	☐	☐	☐
4. Audio materials are properly maintained.	☐	☐	☐	☐	☐	☐	☐	☐
5. Audio equipment is operable and accessible to students.	☐	☐	☐	☐	☐	☐	☐	☐
6.	☐	☐	☐	☐	☐	☐	☐	☐
C. Administrative Planning and Control								
1. Adequate schedule for teachers and aides.	☐	☐	☐	☐	☐	☐	☐	☐
2. Planning sessions are held regularly.	☐	☐	☐	☐	☐	☐	☐	
3. Areas established for specific student activities.	☐	☐	☐	☐	☐	☐	☐	☐
4. Monitoring system has been established.	☐	☐	☐	☐	☐	☐	☐	☐
5. Flow charts are prepared on a regular basis.	☐	☐	☐	☐	☐	☐	☐	
6. Reporting system to parents has been established.	☐	☐	☐	☐	☐	☐	☐	☐

D. Demographics and Statistics

1. Instructional minutes per day and days per week:

Mathematics ________ ________

Reading ________ ________

Spelling ________ ________

Science ________ ________

2. Number of years in Individualized Program(s):

Mathematics ________

Reading ________

Spelling ________

Science ________

3. Number of IPI students ________

4. Number of IPI aides ________

5. Number of IPI teachers ________

Instructional Elements

Date ____________________

MATHEMATICS

	Classrooms											Item Total	Area Total
A. Placement Tests													
1. Student orientation of IPI Math conducted prior to placement testing.													
2. All placement tests administered according to RBS policy.													
3. Tests scored correctly.													
4. Tests recorded correctly.													
5. Placement testing is completed for each student prior to his first prescription.													______
B. Pretests and Postests													
1. Pretests assigned only for nonmastered units.													
2. Units assigned in sequential order.													
3. Postests administered according to RBS policy.													
4. Tests scored correctly.													
5. Tests recorded correctly.													
6. Teacher reviews with student his performance on all tests.													______
C. CET's													
1. CET always a separate prescription.													
2. Performance on summary page assessed prior to prescription of CET.													
3. Teacher and student interact prior to CET prescription.													
4. Performance on CET used to determine additional work in skill.													______
D. Prescription Writing													
1. First prescription is written for lowest unit of placement.													
2. Teacher analyzes, diagnoses, and prescribes according to student's deficiencies on most recent work on diagnostic tests or skill booklets.													
Total number of positive responses													

Mathematics (continued)

	Classrooms											Item Total	Area Total
3. Teacher and student interact on each diagnosis and prescription (when prescriptions written during class).													
4. Review (r) and teaching (t) pages are used as recommended.													
5. Instructional setting prescribed advances mastery of a specific skill.													
6. When supplementary materials are prescribed for use in a specific way, they support mastery of the skill.													
7. Students have been instructed on use and purpose of supplementary materials.													
E. Classroom Management													
1. Teacher has planned daily instructional schedule.													
2. Needed materials gathered prior to class (IPI and supplementary materials).													
3. Procedures established for beginning and ending of class.													
4. Room arrangement permits unimpeded movement.													
5. Teacher observes total class situation.													
6. Waiting-time minimal for students.													
7. Meaningful activities for students waiting for prescriptions or scoring.													
8. Teacher interaction with students for positive reinforcement.													
9. Prescriptions written according to RBS policy.													
10. Aide performs tasks defined in Aiding IPI Math.													
F. Student Self-Management													
1. Students are moving toward self-scoring or are scoring own work.													
2. Students are moving toward self-prescribing or are self-prescribing.													
3. Students aware of own progress through continuum.													
4. Students attempt to resolve difficulties with instructional tasks before seeking teacher help.													
5. Students demonstrate ability to perform instructionally-related tasks in IPI.													

Total number of positive responses

Total number of items 37

COMPANION PIECE
to the
CDI: MATHEMATICS
INSTRUCTIONAL ELEMENTS

A. Placement Tests

1. Student orientation of IPI Math conducted prior to placement testing.
    - a. The individualized nature of IPI has been explained to students.
    - b. The purpose of placement testing has been explained to students.
2. All placement tests administered according to RBS policy
    - a. Placement tests begun at appropriate level

      The guidelines for beginning testing have been followed. Any exceptions have been based on estimation of abilities of students being tested.
    - b. Further testing administered according to results

      Placement testing continues in each area according to results recorded until placement occurs.
3. Tests scored correctly

   Tests correctly scored by aides against Placement Test Key
4. Tests recorded correctly

   Results correctly recorded on student profile by aides:

   ☒ indicates the student has placed

   ⧅ indicates the need for further testing

5. Placement testing is completed for each student prior to his first prescription.

B. Pretests and Postests

1. Pretests assigned only for nonmastered units.

   Each unmastered unit pretest is assigned separately and in its entirety.

2. Units assigned in sequential order

   The unmastered unit lowest in level and area is always assigned first.

3. Postests administered according to RBS policy.

   The postest should be administered for every unit in which the child has worked. The entire postest should be administered the first time.

   If the student does not show mastery of all skills in the unit on the first posttest, only those specific skills not mastered need be retested in subsequent administrations of the postest.

   Prescriptions for additional instruction should be written for all skills for which postest scores are below mastery.

4. Tests scored correctly

   Tests correctly scored by aide against key.

5. Tests recorded correctly

   Skills not mastered are circled on appropriate column of Pre-Post data form. Skills mastered are marked "M". Date is recorded.

6. Teacher reviews with student his performance on all tests.

C. CET's

1. CET always a separate prescription

2. Performance on summary page assessed prior to prescription of CET.

   a. Summary page always prescribed and reviewed by teacher before a CET is prescribed.

b. Diagnosis of poor performance on summary page is the basis for prescription of additional instructional activities.

c. Good performance on the summary page is followed by CET.

3. Teacher and student interact prior to CET prescription

Before a CET is prescribed teacher confers with student to:

a. Assess student's readiness for the CET.

b. Explain to student why teacher does or does not prescribe a CET.

or

elicit student's assessment of own readiness for the CET.

4. Performance on CET used to determine additional work in skill.

If CET mastery criterion is met, no further work is assigned in that skill.

If mastery criterion is not met, the student's deficiencies on the CET are diagnosed and appropriate work prescribed.

D. Prescription Writing

1. First prescription is written for lowest unit of placement.

2. Teacher analyzes, diagnoses, and prescribes according to student's deficiencies on most recent work on diagnostic tests or skill booklets.

Teacher used student performance on Pretest, Student Booklet, CET or postest as basis for diagnosis, selecting most recent sample of students work.

3. Teacher and student interact on each diagnosis and prescription (when prescriptions written during class)

When diagnosing student needs and writing prescriptions during class the teacher confers with the student to:

a. Pinpoint the nature of his difficulty

b. Verbalize to the student the diagnosis and prescription process

c. Gradually increase student responsibility for diagnosis and prescription process

4. Review (r) and teaching (t) pages are used as recommended.

Review pages are prescribed when:

a. Student displays a specific difficulty treated on review pages.

b. Teacher is aware of student's weakness in the area treated on review pages.

Teaching pages are prescribed when student needs instruction on specific concepts treated on those pages.

5. Instructional setting prescribed advances mastery of a specific skill.

Small group, large group, or peer tutor settings are employed when the nature of the instructional materials or activity requires a special setting. Groups are composed of students needing work on the same skill.

6. When supplementary materials are prescribed for use in a specific way, they support mastery of the skill.

When the student does not master an objective through the instructional material in the Student Booklet, supplementary materials are prescribed which when used in a specific way, support mastery of the skill.

7. Students have been instructed on use and purpose of supplementary materials.

Any supplementary materials (manipulative aides, worksheets, games, etc.) to be used by students have been explained to students, so that they are able to use them properly.

E. Classroom Management

1. Teacher has planned daily instructional schedule

   Teacher demonstrates planning in the conduct and management of the class by providing various activities and groupings appropriate to the learning needs of the students.

2. Needed materials gathered prior to class (IPI and supplementary materials).

   Any needed materials required for that class period can be found and used by students, without unnecessary assistance or supervision.

3. Procedures established for beginning and ending of class.

   The class opens and closes in a rapid and orderly way. There is minimal delay in distributing materials and beginning work, and in gathering materials at the end of the period and closing of the class.

4. Room arrangement permits unimbeded movement.

   Teacher and students are able to move freely through the room without distrubing others.

5. Teacher observes total class situation.

   The Teacher is aware of activity of students throughout the classroom, looking specifically at:

   a. Students who need help and are not asking
   b. Independent group activities
   c. Students doing free-time activities
   d. Balance of students needing prescriptions and needing scoring.

6. Waiting-time minimal for students.

   Students should not wait longer than a few minutes for assistance.

7. Meaningful activities for students waiting for prescriptions or scoring.

   a. Pupils should know what to do when they are waiting for prescriptions or scoring.

   b. "Waiting time" should be used for (1) practice on math skills of a difficulty appropriate to the student's level on the continuum, (2) work outside the IPI materials but within the student's current math topic area.

8. Teacher interaction with students for positive reinforcement.

   Teacher "makes contact" with students in the class, positively reinforcing the student's participation in IPI.

9. Prescriptions written according to RBS policy

   a. The amount of prescription writing done during the class period should be kept to a reasonable minimum.

   b. Prescription writing is done during class if a prescription is completed by the student or if the teacher's interaction with a student causes her to change or add to the original prescription.

   c. All pupils should have the prescriptions they need available to them at the start of the class period.

10. Aide performs tasks defined in Aiding IPI Math

   a. Aide scores student work on tests and on skill sheets when students are not able to score own. The aide may perform other in-class tasks specified by teacher or school policy.

   b. Aide scoring:

      1. The student need wait only a few minutes for any scoring in class that he cannot do himself.

      2. Folders requiring scoring after class are completed and returned to the teacher on schedule.

F. Student Self-Management

1. Students are moving toward self-scoring or are scoring own work.

   a. Students are being moved toward self-scoring.

    b. There is a definite procedure for teaching self-scoring.

    c. Students are able to carry out procedure of self-scoring.

    d. Teacher monitors student's performance when self-scoring.

2. Students are moving toward self-prescribing or are self-prescribing

    a. Students are being moved toward self-prescribing.

    b. There is a definite procedure for teaching self-prescribing.

    c. Students are able to carry out procedure of self-prescribing.

    d. Teacher monitors student's performance when self-prescribing.

3. Students aware of own progress through continuum

    Students can describe their current unit and (when appropriate) skill, and the task being undertaken. For example: "I'm about to take a postest for C-Mult." "I'm working in the D-Add/Sub-8 student booklet. If I can do this summary page I'll probably go to take a CET.

4. Students attempt to resolve diffidulties with instructional tasks before seeking teacher help.

    Students attempt to work out problems that are difficult or confusing by:

    a. Identifying the nature of the difficulty

    b. Requesting help from peer if problem is with reading or interpreting instructions

    c. Re-reading instructions

    d. Working example

    e. Looking for earlier pages that explain the concept.

5. Students demonstrate ability to perform instructionally-related tasks in IPI.

    a. Locating IPI materials prescribed

    b. Locating supplementary materials prescribed.

Instructional Elements

Date ______________________

READING

	Classrooms											Item Total	Area Total
A. Placement Testing													
1. Student orientation to IPI Reading is conducted prior to Placement testing.													
2. All placement tests administered according to RBS policy.													
3. All placement tests scored and recorded correctly.													
4. Placement testing is completed for each student prior to his first prescription.													
													______
B. Pretest and Posttest													
1. Pretests assigned for non-mastered units (I.R.).													
2. Prescriptions written for non-mastered skills on test (I.R.).													
3. Posttests administered according to RBS policy (I.R.).													
4. All tests scored and recorded correctly.													
5. End-of-Book-Test administered upon mastery of all units within a book (P.R.)													
6. Teacher reviews with student his performance on all tests.													
													______
C. Curriculum Embedded Tests (CET)													
1. CET's are always separate prescriptions.													
2. Mastery criteria adhered to.													
3. Student and teacher interact prior to CET prescription.													
4. Performance on CET used to determine additional work in the skill area.													
													______
D. Prescription Writing													
1. Teacher and student interact on each diagnosis and prescription of student's work (on prescriptions written during class).													
Total number of positive responses													

Reading (continued)

	Classrooms											Item Total	Area Total
2. Teacher analyzes, diagnosis, and prescribes according to student's deficiencies on most recent work and diagnostic tests and skill booklets.													
3. Instructional setting prescribed advances mastery of a specific skill.													
4. When prescribed, supplementary materials aid students in achieving a specific skill.													
5. Students have been instructed on use and purpose of supplementary materials.													
D. Primary Reading Instruction													
1. Students are paced through Book 1 and 2 in the Programmed Readers.													
2. Spot-checking of oral reading in programmed material occurs.													
3. Students participate in tape lesson when assigned.													
4. Teacher reviews Unit Tests (CET's) with student.													
5. The Unit Summary Chart is appropriately used.													
6. The teacher uses the Prescription Form in the Tapebook as stated.													
7. Asterisked material on Prescription Form is assigned only when needed.													
8. Students participate in group reading at assigned points.													
9. Group Story Record is found in student's notebook and is maintained by the teacher.													
10. Student participates in independent reading at assigned points.													
11. Teacher Evaluation procedures are followed.													
E. Intermediate Reading Instruction													
1. First prescription written for lowest unit of placement.													
2. The activities involved in a directed reading lesson follow the general progression of group-individual-group.													
3. In Directed Reading, the "Pupil Evaluation Sheet" is maintained.													
Total number of positive responses													

Reading (continued)

	Classrooms											Item Total	Area Total
4. Student choses his book for Selected Reading and the activity(s) appropriate to his selection.													
5. Selected Reading Diary is maintained by student.													
6. Teacher-student conferences scheduled at the completion of the Selected Reading book.													
F. Classroom Management													
1. Teacher has a daily plan governing the activities for each IPI class.													
2. Needed materials gathered prior to class (IPI and supplementary materials).													
3. Procedures established for beginning and ending of class.													
4. Room arrangement permits unimpeded movement.													
5. Teacher observes total class situation.													
6. Waiting-time minimal for students needing teacher help with instructional task.													
7. Meaningful activities for students waiting for prescriptions or scoring.													
8. Teacher interacts with students for positive reinforcement.													
9. Prescriptions written before class.													
10. Prescriptions written during class.													
11. Aide performs tasks as defined for appropriate program.													
G. Student-Self-Management													
1. Students are moving toward self-scoring or scoring own work.													
2. Students are moving toward self-prescribing or are self-prescribing.													
3. Students aware of own progress through continuum.													
4. Students attempt to resolve difficulties with instructional tasks before seeking teacher help.													
5. Students demonstrate ability to perform instructionally-related tasks in IPI.													
Total number of positive responses													

Total number of items 52

COMPANION PIECE

to the

CDI: READING

INSTRUCTIONAL ELEMENTS

A. Placement Testing

(New school or students new to the program.)

1. Student orientation to IPI Reading is conducted prior to Placement testing.
    a. Prior to implementing the reading program students must be introduced to the materials and their role in the program.
    b. The purpose of placement testing is explained to students prior to initiating the testing procedures.
2. All placement tests administered according to RBS policy.

(New school or students new to the program.)

- a. Students with no prior school experience begin with Programmed Reading Part I: Reading Readiness.
    1. Kindergarten students or students in the first grade who have never attended school begin with Programmed Reading Part I: Reading Readiness.
    2. The work in this section is presented to students through group instruction.
- b. Students who have completed Programmed Reading Part I: Reading Readiness work in Programmed Reading Part II: The Pre-Reader.
    1. Whether or not a student works in Part II is contingent upon teacher's judgement of the student's ability to perform the level of student accomplishments as stated in the Teacher's Guide to the Pre-Reader.
    2. The work in this section is presented to students through group instruction.

c. New students with some school experience begin with the End-of-Book-Test.

1. Students who have attended pre-school or kindergarten may fall into this category. They are given the End-of-Book-Test, if they can perform at the level of student accomplishments as stated in Teacher's Guide to the Pre-Reader.

2. Other students with some school experience who teachers feel may by-pass Stage I are given the End-of-Book-Test for Placement. The first test is selected by the teacher according to her estimation of the student's ability.

3. Students are placed in the first book in which they do not achieve mastery.

d. New students will begin placement testing for Stage IV if they are reading at a 3^2 or 4^1 level.

It is recommended that the student be reading at the 3^2 or 4^1 level before entering Stage IV.

*(Old schools)

e. Returning students begin with the End-of-Book-Test for the book in which they were working at the close of last year.

If they do not achieve mastery, they are placed in that book.

If they achieve mastery (90%), they are given the End-of-Book-Test for the next higher Programmed Reader.

f. Students previously in IPI Reading will begin placement testing for Stage IV after the completion of Tapebook 20.

The pre-requistite for taking E-Level Placement is the completion of Tapebook 20.

g. Students, previously in Stage IV Reading, are given the placement test for the level in which they were working at the end of the last school year.

1. For example, a student who was working in F-Literal Comprehension should be given the Placement Test for F-Level. A student who is working in G-Structural Analysis should be given the G-Level Placement Test.

2. If a student achieves mastery (85%) of a particular unit on a placement test, he is given the placement test for the next higher level.

*(All schools -- new and old)

h. The entry in the column at the right-hand side of the Placement Score Profile should correspond to the level of placement.

After the aide has finished the scoring and recording of the test results, the teacher indicates the students unit placement for each area/level in the column at the right-hand side of the Placement Score Profile.

3. All placement tests scored and recorded correctly.

4. Placement testing is completed for each student prior to his first prescription.

Placement is established in all areas prior to student's first prescription.

B. Pretest and Posttest

1. Pretests assigned for non-mastered units (I.R.).

An entire pretest is assigned for each unit.

2. Prescriptions written for non-mastered skills on test (I.R.).

A student must demonstrate mastery of each skill before he progresses through the IPI program.

3. Posttests administered according to RBS policy (I.R.).

The posttest should be administered for every unit in which the child has worked. The entire posttest should be administered the first time.

If the student does not show mastery of all skills in the unit of the first posttest, only those specific skills not mastered need to be retested in subsequent administrations of the posttests.

Prescriptions for additional instruction should be written for all skills for which posttests scores are below mastery.

4. All tests scored and recorded correctly.

Pretests, posttests and End-of-Book-Tests are properly scored and recorded according to RBS policy.

5. End-of-Book-Test administered upon mastery of all units within a book (P.R.).

   A student must demonstrate mastery of each skill before he progresses through the IPI program.

6. Teacher reviews with student his performance on all tests.

C. Curriculum Embedded Tests (CET)

1. CET's are always separate prescriptions.

   CET's are not prescribed until an assessment of skill pages have been made by teachers.

2. Mastery criteria adhered to.

3. Student and teacher interact prior to CET prescription.

   It is suggested that teachers confer with the students on assignments in that skill prior to CET.

4. Performance on CET used to determine additional work in the skill area.

   When a student begins to work in a skill, his pretest is the only diagnostic instrument analyzed to determine his prescription. Once he has worked in the skill and completed the CET, the analysis of his performance on the CET becomes the basis for his next prescription.

D. Prescription Writing

1. Teacher and student interact on each diagnosis and prescription of the student's work (on prescriptions written during class).

   When diagnosing student needs and writing prescriptions during class the teacher confers with the student to:

   a. Pinpoint the nature of his difficulty.

   b. Verbalize to the student the diagnosis and prescription process.

   c. Gradually increase student responsibility for diagnosis and prescription process.

2. Teacher analyzes, diagnosis, and prescribes according to student's deficiencies on most recent work and diagnostic tests and skill booklets.
    a. The teacher uses student work most recently completed as the basis for diagnosis.
    b. The teacher bases the prescriptions on the diagnosis.
    c. The teacher confers with the student to pinpoint the nature of his difficulty.
3. Instructional setting prescribed advances mastery of a specific skill.
    a. Small group, large group, or peer tutor settings are employed when the nature of the instructional materials or activity require a special setting.
    b. Groups are composed of students needing work on the same skill.
4. When prescribed, supplementary materials aid students in achieving a specific skill.

    Supplementary materials are used to help students master a specific skill.
5. Students have been instructed on use and purpose of supplementary materials.

    Any supplementary materials (manipulative aides, worksheets, games, etc.) to be used by students have been explained to students, so that they are able to use them properly.

D. Primary Reading Instruction

1. Students are paced through Book 1 and 2 in the Programmed Readers.
    a. Group instruction is used to pace the students through Book 1 and 2 with the teacher using the procedures and suggestions which can be found in the Teacher's Guide to Programmed Reading Book 1.
    b. If students receive 90% on the End-of-Book-Test for Book 1, they may work independently in Book 2.

2. Spot-checking of oral reading in programmed material occurs.

   Teacher has student read at least one frame per page aloud from the programmed material.

3. Students participate in tape lesson when assigned.

   a. The student uses tape cassettes with corresponding skillsheets in the tapebook to complete assignments.

   b. The student goes to the audio room or audio center within the classroom to use the tape cassettes.

4. Teacher reviews Unit Tests (CET's) with student.

   The teacher confers with the student to pinpoint the nature of his difficulty.

5. The Unit Summary Chart is appropriately used.

   The Unit Summary Chart is used by the teacher to record the student's results of Unit Tests and End-of-Book-Tests.

6. The teacher uses the Prescription Form in the Tapebook as stated.

   The prescription by the teacher follows the sequence of materials found on the Prescription Form.

7. Asterisked material on Prescription Form is assigned only when needed.

   a. Additional cassette lessons and skillsheets on the Prescription Form are marked with an asterisk and indented.

   b. Teacher assigns asterisked material based on the results of students performance on the unit test, oral test, and skillsheets.

   c. When a student is assigned any asterisked work, the reason is noted under the "comments" section on his prescription.

8. Students participate in group reading at assigned points.

   Students read a group story anytime after they have completed designated pages in their assigned programmed reader.

9. Group Story Record is found in student's notebook and is maintained by the teacher.

   a. Group Story Record (Books 4 to 8) should remain in the student's black notebook during the time he is working in McGraw-Hill Books 4 to 8.

   b. Group Story Record (Books 9 to 14) should remain in the student's black notebook during the time he is working in McGraw-Hill Books 9 to 14.

   c. When the student finishes the group story, the teacher marks the date and if necessary makes comments.

10. Student participates in indpendent reading at assigned points.

   a. When the prescription indicates, the student gets a Study Guide for an independent story.

   b. The student reads the story and completes the study guide.

   c. The test for comprehension is completed by the student.

11. Teacher Evaluation procedures are followed.

   If the score on the test for silent comprehension does not indicate mastery, the Teacher's Evaluation found in the Teacher's Manual Books 4 to 14 and Teacher's Manual Books 15 to 20 is used.

E. Intermediate Reading Instruction

1. First prescription wirtten for lowest unit of placement.

   The first prescription written for each student should correspond to his lowest unmastered unit.

2. The activities involved in a directed reading lesson follow the general progression of group-individual-group.

   There is group reading (and often discussion) of the selection followed by an individual assignment which is academic or creative in nature, and than a group session to share the individual assignments.

3. In Directed Reading, the "Pupil Evaluation Sheet" is maintained.

   a. The selections read, the date and comments about the directed lesson, independent assignement and follow-up are noted on this form.

   b. Teacher is able to document a student's performance for each selection, to periodically check continuous student progress and to document the type of selections and activities with which the student was successful.

4. Student choses his book for Selected Reading and the activity(s) appropriate to his selection.

    a. The selection is based on his placement in the IPI Skills Continuum.

    b. Attached to the inside back cover of each book is a "card" listing special activities appropriate to the selection which can be completed by the student, either independently or in a small group, with minimal or no teacher supervision.

    c. Activities of several types have been included in the program, but all decisions in this area are the students'; whether or not to do an activity and which activity to do.

5. Selected Reading Diary is maintained by student.

    a. Written record of all selections read.

    b. Written record of activities.

    c. Place to write original stories, put drawings, etc.

    d. Master list of activities.

6. Teacher-student conferences scheduled at the completion of the Selected Reading book.

    This gives each student an opportunity to share his understanding of an reactions to what he has read with the teacher in a private teacher-student conference.

F. Classroom Management

1. Teacher has a daily plan governing the activities for each IPI class.

    Teacher demonstrates planning in the conduct and management of the class by providing various activities and groupings appropriate to the learning needs of the students.

2. Needed materials gathered prior to class (IPI and supplementary materials).

    Any needed materials required for that class period can be found and used by students, without unnecessary teacher assistance.

3. Procedures established for beginning and ending of class.

   The class opens and closes in a rapid and orderly system.

4. Room arrangement permits unimpeded movement.

   Teacher and students are able to move freely through the room without distrubing others.

5. Teacher observes total class situation.

   The teacher is aware of activity of students throughout the classroom, looking specifically at:

   a. Students who need help and are not asking for help.

   b. Independent group activities.

   c. Students doing freetime activities.

   d. Balance of students needing prescriptions and needing scoring.

6. Waiting-time minimal for students needing teacher help with instructional task.

   Students should not wait longer than a few minutes for assistance.

7. Meaningful activities for students waiting for prescriptions or scoring.

   a. Pupils should know what to do when they are waiting for prescriptions or scoring.

   b. "Waiting time" should be used for (1) practice on reading skills to a difficulty appropriate to the students level on the continuum, (2) work outside the IPI materials, but in the student's current reading topic area.

8. Teacher interacts with students for positive reinforcement.

   Teacher is careful to "make contact" with most students in each class to positively reinforce the student's participation in IPI.

9. Prescription written before class.

   Teacher has reviewed student's folders and all students have the prescription they need available to them at the start of the class period.

10. Prescriptions written during class.

In-class prescription writing done by teacher to keep a flow of activities for students.

11. Aide performs tasks as defined for appropriate program.

a. During IPI classes:

Score and record tapebook pages, skillsheets, and tests that are not scored or recorded by the student.

Assist student in obtaining materials in the materials center when necessary.

Cooperate with the teacher, upon request, in facilitating classroom management.

Supervise use of supplementary materials and tape machines.

b. Outside IPI classes:

Keep student folders current by completing the scoring and recording of student work and by completing record forms in the folder.

Pull and file completed student prescriptions and tests as indicated by the teacher.

Keep an up-to-date file of permanent student IPI records.

Prepare any materials needed by the faculty for planning sessions (class flowchart, etc.).

Keep a current set of scoring keys for use by aides, teachers, and students.

Organize, inventory, and order IPI instructional materials.

c. Minimal delay in aide scoring.

The student need wait only a few minutes for any scoring in class that he cannot do himself.

C. Student-Self-Management

1. Students are moving toward self-scoring or scoring own work.

a. Students are being moved toward self-scoring.

    b. There is a definite procedure for teaching self-scoring.

    c. Students are able to carry out procedures of self-scoring.

    d. Teacher monitors student's performance when self-scoring.

2. Students are moving toward self-prescribing or are self-prescribing.

    a. Students are being moved toward self-prescribing.

    b. There is a definite procedure for teaching self-prescribing.

    c. Students are able to carry out procedure of self-prescribing.

    d. Teacher monitors student's performance when self-prescribing.

3. Students aware of own progress through continuum.

    Students can describe their current unit and (when appropriate) skill, and the task being undertaken.

4. Students attempt to resolve difficulties with instructional tasks before seeking teacher help.

    Students attempt to work out problems that are difficult or confusing by:

    a. Identifying the nature of the difficulty.

    b. Requesting help from peer if problem is with reading or interpreting instructions.

    c. Re-reading instructions.

    d. Working example.

    e. Looking for earlier pages that explain the concept.

5. Students demonstrate ability to perform instructionally-related tasks in IPI.

    a. Locating IPI materials prescribed.

    b. Locating supplementary materials prescribed.

School ______________ Consultant ______________ Date __________

SCHOOL IMPLEMENTATION SUMMARY

I. Instructional Elements Summary

IPI MATH	Dates		IPI READING	Dates		IPI SPELLING	Dates		IPI SCIENCE	Dates	
Placement Tests	___	___	Placment testing	___	___	Introductory Skills Training	___	___	Tests	___	___
Pretests and Posttests	___	___	Pretests and Posttests	___	___	Skills Training	___	___	Classroom Management	___	___
CET's	___	___	CET's	___	___	Diagnostic Tests	___	___	Student Self-Management	___	___
Prescription Writing	___	___	Prescription Writing	___	___	Prescription Writing	___	___			
Classroom Management	___	___	Primary Reading Instruction	___	___	Classroom Management	___	___			
Student Self Management	___	___	Intermediate Reading Instruction	___	___	Student Self-Management	___	___			
			Classroom Management	___	___						
			Student Self-Management	___	___						
Number of Classrooms Observed	___	___	Number of Classrooms Observed	___	___	Number of Classrooms Observed	___	___	Number of Classrooms Observed	___	___

II. School Organization Summary

	Dates			Dates			Dates			Dates	
IPI MATH			IPI READING			IPI SPELLING			IPI SCIENCE		
Materials and Space Allocation	___	___	Materials and Space Allocation	___	___	Materials and Space Allocation	___	___	Materials and Space Allocation	___	___
Audio Center	___	___	Audio Center	___	___	Audio Center	___	___	Audio Center	___	___
Administrative Planning and Control	___	___	Administrative Planning and Control	___	___	Administrative Planning and Control	___	___	Administrative Planning and Control	___	___

III. Statement of School's Goals

IV. Other Descriptors of School

A. Instructional Programs other than RBS

B. School Plant (how structured, how used)

C. Personnel Utilization (number of aides, team teaching, reading coordinator, etc.)

D. Strengths in implementation

School ____________________ Consultant ____________________

V. PROBLEM ATTACK RECORD

DATE	PROBLEM	PROBABLE CAUSE	RECOMMENDATIONS	DATE	FOLLOW-UP